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ORIGINAL LECTURES.

TYPHOID FEVER.

A clinical lecture delivered at the Charity Hospital, New Orleans.

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(Reported by J. H. BEMISS, M.D., from clinical notes by DR. T. D. FITCH.)

GENTLEMEN: I desire to call your attention in this lecture to two cases of typhoid fever, the clinical careers of which you have recently had an opportunity to witness. Typhoid fever is not a very common disease in this city; and as rich as this great hospital is in furnishing examples of all forms of disease that the physician is called upon to treat, it has been very seldom indeed that I have been enabled to exhibit two cases of typhoid fever under treatment at the same time. I must further state that when such occasions do occur, they are generally brought about by the simultaneous arrival in this city of the subjects of the disease, coming from localities where typhoid fever is more an endemic affection than it is here.

Typhoid fever is, as most of you are aware, one of those affections that we classify as filth-diseases. This term may be regarded as especially applicable to typhoid fever, since it is well understood that the specific cause which produces the disease may be conveyed to the systems of the well by the fecal matter of those sick with the malady. Again, it is also well understood that this specific poison is rendered more intense in its toxic effects by combinations with extraneous filth. Thus in a two-fold sense it may be called a filth-disease.

This special poison which produces typhoid fever is conveyed into the system by means of substances taken into the stomach; for example, water and milk; and under some circumstances may be rendered capable of being air-borne and be brought into the human system by way of the respiratory apparatus, or by effecting lodgement upon the mucous membrane of the mouth or pharynx. The best accepted doctrine is, that in becoming an air-borne agent, so as to transmit the disease through this medium, the stools containing the poison must become desiccated and distributed through the atmosphere in the form of dust. New Orleans is not so circumstanced as to favor either of these methods of distributing the typhoid fever poison. We obtain our drinking water from wooden cisterns filled by rain-water falling upon the roofs of houses. This method of obtaining drinking water cuts off all danger of spread of typhoid fever through those means by which it is so commonly diffused in localities where the drinking water is obtained from wells or natural fountains. In those localities, the stools of persons sick with typhoid fever may find their way through surface or sub-soil water to those sources of water supply to which the inhabitants are confined. Here, on the contrary, if the filth which contains the poison should render our water impure, it can only do so by first becoming desiccated and then finding lodgement in the shape of dust on the roofs of our houses and being washed by rains into our cisterns. This explains, and in so far as I know, it is the only adequate explanation of the fact, that New Orleans has never experienced an epidemic of typhoid fever. We must, however, deplore the fact that no similar statement can be correctly affirmed in respect to the greater number of the cities and towns located in the Mississippi valley. It is well to call your attention in this connection to the entire disregard of all sanitary precepts and sanitary experience, which is observable in the location and construction of both our towns and family residences. We generally find them located near a natural fountain of water which is usually situated in a depression of the earth's surface. As a general rule, privies are not provided with boxes, nor even with pits, and the consequence is that with every shower the fecal deposits are washed along the surface and find their way into the drinking water of the people.

I will, therefore, without further digression, call your attention pointedly to the histories and clinical phenomena of the two cases referred to. In the course of rehearsal of these symptoms and histories, or at the close, I will introduce such comments as seem apposite.

The first of these patients, in the order of their admission to the Hospital, was James Sentenn, aged 16 years, a native of New York. He was admitted to Ward 18, bed 254, November 29, 1881. He had just reached New Orleans on the day of his admission, having made the voyage from St. Louis in a flat-boat. He states that he had been sick about a week before reaching the city.

November 30.—I saw the patient for the first time on the morning of November 30. The house-surgeon had given on the evening of the 29th ℥j of the liquor cinchonidia of the hospital, which contains grs. v of sulphate of cinchonidia dissolved by means of dilute sulphuric acid. I prescribed on this visit ℥ss of the same, to be given in ℥j doses every four hours; also directed that bitartrate of potassium should be given in ℥j doses every three hours, in lemonade. Epistaxis had occurred just prior to my visit, and there was evident tendency to diarrhœa.

December 1.—Patient complained of abdominal pain; had again had epistaxis; skin dry, cheeks flushed. Ordered

℞.—Neutral mixture, ... ℥iiiss.
Tinct. digitalis,
Syrup morphia, ... āā ℥ij.
M. et. ft. sol. Sig. Tablespoonful every two hours.

Also a diet of beef tea alternated with roast apple and boiled milk.

2d.—Epistaxis had again occurred; abdominal pain still troublesome. Ordered

℞.—Neutral mixture, ... ℥iij.
Tinct. hyoscyamus,
Tinct. digitalis,
Syrup morphia,
Syrup ipecac, ... āā ℥ij.
M. et. ft. sol. Sig. Tablespoonful every four hours.

Diet of milk and beef tea.

Student reported that at evening visit the patient was delirious, and had had about fifteen liquid stools of a yellowish color.

3d.—Epistaxis again, and continuance of abdominal pain. Bowels still loose; stools pea-soup in character. Treatment continued.

4th.—Patient delirious all night. Epistaxis, and, when rational, persistent complaint of pain in abdomen. Treatment continued.

5th.—Bowels still loose; stools pea-soup in character; no epistaxis; still complains of pain in abdomen; distinctly marked rose-colored spots on abdomen; tongue brown, dry, and cracked. Thermometer could not be placed in mouth because of delirium. Ordered

℞.—Sulphuric acid dil., ... ℥j.
Tinct. cinchona co., ... ℥vij.
Syrup morphia, ... ℥iv.
M. et. ft. sol. Sig. Teaspoonful every four hours.

Bowels still loose. Ordered that chloral hydrate ℈j be given at night in case of insomnia.

6th.—Large number of rose spots have appeared this morning; tongue coated brown; abdomen tympanitic. Had taken the chloral hydrate as directed, and several hours of good sleep ensued. Treatment continued.

7th.—Student reported that at his last visit on the previous evening, the patient was found in a semi-comatose state; eyes partly closed; mouth open, breathing stertorously; some new rose-colored spots; only one stool during the day; tongue dry, brown, and cracked on each side; had not passed urine during the day; urine drawn off with a catheter; patient so nearly unconscious he scarcely noticed its introduction. Patient was found this morning in a state of coma-vigil; abdomen tympanitic; tongue brown, cracked, and red at tips and edges; also sudamina present. Had taken chloral hydrate grs. xx per rectum; bladder was emptied by means of catheter. Treatment continued. Concentrated animal nourishment in fluid form was pressed upon the patient by mouth and rectum.

8th.—Mr. Fitch reports that at his last visit the evening previous the patient had had one stool only during the day, somewhat moulded in character, and had passed a little urine at the same time. Subcrepitant and sonorous râles over base of posterior parts of both lungs, with expectoration of yellowish sputa. Patient had taken chloral hydrate grs. xx, per rectum, succeeded by several hours of tolerably comfortable sleep; had one stool in night, one in morning, somewhat moulded and clay-colored; has passed sufficient quantity of urine; tongue brown, dry, and cracked. Patient took oatmeal and boiled milk and some wine. Medicines continued.

9th.—Student reports three stools during the previous day, somewhat moulded and clay-colored. Had taken as nourishment oatmeal and chicken-broth. Was found to have rested badly during the night, although chloral hydrate had been given as usual. Had one liquid stool during the night. More disposition to eat.

10th.—Patient had had six stools during the latter part of previous day; appetite not so good; tongue still coated brown; had rested pretty well during the night without any hypnotic.

11th.—Had been delirious all night; tongue brown-coated; teeth covered with sordes; one loose stool. Ordered, Dover's powder, grs. x, at night; diet of wine, milk and crackers, and chicken-broth.

12th.—Had had three stools during latter part of the day before, moulded and darker in color. Slightly delirious this morning; tongue brown-coated; abdomen not so swollen and tympanitic; disposed to eat. Ordered repetition of Dover's powder at night. More rational.

13th.—Bowels not moved since yesterday morning; rose spots gone; somewhat delirious last night. Took Dover's powder as directed.

14th.—Had had two stools; restless and somewhat delirious at night; picking at bed-clothes. Bed-sore over the sacrum. Tongue somewhat moist and shows a disposition to clean. Medicines continued.

From this time on, convalescence progressed without interruption until on December 21st, and about the thirtieth of his disease, he was discharged from further treatment. He was, however, kept in the hospital under observation until sufficiently strong to admit of his discharge.

The second case was that of Frank Boyer, aged 18 years, native of Ohio, who was admitted to Ward 20, Bed 298, on December 3, 1881. Patient had been travelling with a circus company. Stated he had been sick an indefinite length of time; did not know how long, nor where he was when he first began to complain. Entered with a flushed face, fever, diarrhœa, and complained of pain in back.

December 4.—Had been given ℥ij[1] Hauster's cinchonidia during the evening of the 3d of December by the house surgeon. Had had one liquid stool during the night. Ordered ℥j of H. C. every three hours.

5th.—Treatment continued.

6th.—Well-marked rose spots observable upon the abdomen; no pain, but lies with knees flexed; face flushed; vomited three times; complete anorexia; skin moist.

7th.—New rose spots observable; one stool resembling pea-soup; face flushed; some tympanitis and tenderness in iliac region.

8th.—One characteristic typhoid stool; new eruptions; gurgling in ileo-cæcal region; tongue brown-coated; face flushed and red.

9th.—Three characteristic stools since last observation; a few new eruptions; gurgling in ileo-cæcal region; tongue coated brown; patient is slightly deaf.

10th.—Patient delirious during the night, but complains this morning of pain upon pressure in ileo-cæcal region; headache; deafness; three stools since last report, still characteristic.

11th.—Four stools, somewhat more consistent; tongue the same as before reported; gurgling in ileo-cæcal region; patient slightly delirious.

12th.—No stools since last report; tongue brown-coated; sordes upon the teeth; delirious and attempting to leave bed.

13th.—One stool since last observation, probably induced by rectal injection of grs. xx of chloral hydrate in sweet milk. Patient restless during the night; abdomen tympanitic; tongue brown-coated; not so delirious to-day, but is still deaf.

14th.—No stools since last observation. Retained an enema of chloral hydrate, grs. xx, in milk. Much grinding of teeth at night, but not delirious; some deafness yet; perspired freely; tongue brown-coated.

15th.—No stools since last observation; tongue moist and cleaning. Very little delirium during the night.

From this time on, patient continuously improved, until the morning of December 22d, when he was discharged from treatment, but retained in the hospital until convalescence was perfected.

Having now rehearsed the leading clinical events of these cases with sufficient minuteness to give you a clear impression of their symptomatology, let me ask your attention to the *diagnosis* which has been announced. In other words, are the proofs unquestionable that the patients were really sick with typhoid fever? The diagnosis which has been given you is perfectly defensible in regard to each case.

1st. The symptoms relating to the nervous system—(a) ataxia, (b) delirium, (c) coma-vigil, (e) deafnesss—are clearly illustrative of typhoid fever.

2d. The characteristic march of temperature.

3d. The epistaxis.

4th. The diarrhœa with the (a) characteristic stools, and (b) gurgling in the ileo-cæcal region.

[1] Similar solution to liquor cinchonidia with the addition of 7¼ drops of tincture of opium to the ℥.

And last of all: 5th. The typhoid roseola quite surely demonstrate that we had to deal with that disease.

Another question which naturally occurs to the physician of long practice in this part of the world, where malarial affections are so common, is whether the typhoid fever was uncomplicated in these cases. I have been able to show you in the wards of the hospital this winter, cases which presented the clinical phenomena of a pathology compounded by the co-existence of the malarial and typhoid fever poisons in the same person. In a future lecture I hope to demonstrate these cases, so as to point out the differences in their clinical courses as compared with the two cases which form the subject of this lecture. For the present, I can state that there were no evidences going to prove that these cases were complicated by the presence of any other specific poison than that of typhoid fever.

I hope, during the present course of lectures, to impress your minds with the importance of cultivating more precision in language in the use of the term *typhoid* in reference to any disease, than is generally employed in medical conversations, or even in some medical writings of the present day. We may properly speak of a patient sick with any form of disease as being in a typhoid state or condition. Here we use the term in its strictly adjective sense, but to speak of typhoid fever substantively, should convey to your mind the idea of a patient suffering from the effects of the specific typhoid poison. A malarial case which has fallen into a typhoid condition is not typhoid fever, and the term typho-malarial should be restricted to those cases in which the typhoid fever poison and the malarial poison are each present, and each pursuing its own morbid process and giving rise to its own symptomatology.

The morbid process of each of the two cases brought up before you seems to have been essentially that of typhoid fever. In the first place, we observe a general or constitutional effect of the poison in the occurrence of ataxia, feverishness, and epistaxis (in one case) as very early manifestations of the disease. I think the proofs are quite conclusive, that there is a general or constitutional effect of the typhoid fever poison before any symptoms are observable which indicate the production of its local lesions. Again we may say that while these constitutional effects, if such are produced, seem to antedate the occurrence of local lesions, it can also be stated that they bear no direct relation, in gravity, to the extent or severity of any local lesions which may subsequently occur. In respect to the febrile march, which is so characteristic of typhoid fever, it must be admitted that even if the feverishness which marks the early stages of the disease is an essential fever, *i. e.*, a fever produced by the action of the typhoid fever poison upon the heat-making processes by some influence exerted through the blood, the more intense fever which marks the fully declared disease does bear a direct relation to the progress and various stages of the local lesions. Before the first ten days of typhoid fever have elapsed the temperature begins to show a regular diurnal increase which observes a close co-relation to the progress of the intestinal lesions. When the temperature has reached its highest figure, it maintains itself very nearly at this stadium until the process of ulceration has come to a stop. Then we have oscillations of temperature exhibiting a close resemblance to those which occur in the hectic of phthisis, or other pyogenic conditions of disease. I think, therefore, that it may be safely affirmed that the typhoid fever poison has one effect upon the system which is general, and seems to be primary or essential; and another effect which is local, and which in order of sequence succeeds its primary effect.

It is always profitable to the practitioner of medicine to be conversant with the various modes through which any given disease ordinarily produces death. This is equivalent to that understanding of the strategy of an enemy which frequently gives the general his success. Death in typhoid fever cases most frequently occurs from:

1st. Exhaustion; there are four factors which concur in producing death in this manner:

a. The changes in the blood primarily induced by the poison.

b. The unusual high markings of the fever curves.

c. The excessive diarrhœa.

d. The damage to the digestive processes by reason of the lesions of the alimentary canal, and the consequent anorexia.

2d. Hemorrhage is also a mode of death by this disease. Hemorrhage sometimes occurs within the first ten days of illness from:

a. Congestion and breaking down of the capillaries in the mucous and sub-mucous tissues which are the seat of inflammation induced by the typhoid deposits.

b. When hemorrhage occurs during the third week of disease it is more apt to be due to the erosion of bloodvessels by the process of ulceration.

3d. Perforation is also a late event in the course of the disease, and in truth sometimes takes place after convalescence has seemed so complete that the patient has been discharged from observation.

4th. It should also be remembered that certain fatal sequelæ are liable to befall typhoid fever patients after the disease has run its course; for instance—

a. Heart failure in consequence of degenerative changes in its muscles; also

b. Diseases of the lungs, as pneumonia and tuberculosis.

The prognosis in typhoid fever must be based principally on the greater or less urgency of those symptoms which presage the occurrence of exhaustion. Great nervous ataxia, delirium, sinking in bed, insomnia, profuse exhaustive diarrhœa, incompetency of the nutritive processes, are unfavorable prognostics.

No specific treatment of typhoid fever can be formulated so as to be particularly gratifying to the practitioner of medicine, either as respects the soundness of the philosophy upon which it is theoretically based, or the results which it affords. Everywhere, and in all ages, the medical history of mankind appears to show some prompting in the direction of a specific for each of the maladies which afflict the race. The therapeutics of typhoid fever show a long list of remedies which have been suggested as possessing special efficacy in effecting its cure. I do not consider that it will be profitable to occupy your time in recapitulating the list of remedies which have been resorted to as specially curative of the disease. In looking over them you will find that, for the most part, each one was supposed to have reference to some particular phase or type of the morbid phenomena present. For example, yeast and charcoal, bicarbonate of sodium, and chlorate of potassium have been frequently used for their supposed antagonism to the septic nature of this disease. Iodine may possibly be classed in the same category. The calomel treatment, which has enjoyed so much reputation, is based upon its influence in antagonizing inflammation of solid structures and in eliminating by reason of its cathartic effect.

Typhoid fever has never under my observation been jugulated by any form of treatment which I have seen instituted. But notwithstanding the truth of this affirmation, we must admit that cases which cannot be otherwise diagnosed than as typhoid fever, do occasion-

ally terminate so easily and so suddenly, that we call them aborted cases.

These admissions in regard to our incapability of aborting typhoid fever, or curing it by any one specific remedy, need not dishearten us. There is a rational method of treatment, by which we can conduct a very large percentage of our patients through the dangers of an attack. I will as briefly as possible lay before you those methods of treatment which are regarded as productive of the most favorable results. As the measures of treatment differ in the various stages of typhoid fever, it will in all probability instruct you better, if, in speaking of any remedies considered to be indicated, I should at once give you my estimates of their methods of use and beneficial results throughout the clinical course of the disease.

As the fever is always an early and very important symptom in typhoid fever, let us first consider the antipyretic treatment of the disease. The application of cold to the surface is a very old form of practice for the reduction of temperature in this fever. This may be practised by means of cold baths to the whole surface, repeated as often as reaction occurs after their use; or cold sponging; or the applications of ice. This method of practice is applicable to cases in which the heart's action is vigorous and the surface warm; if there is a feebly acting heart, or if hemorrhage is threatened, it is inadmissible. Cold drinks, in sufferable quantities, are never objectionable. Injection of cold water in large quantities into the lower bowel is also a measure by which systemic heat can be certainly reduced.

Quinia in large doses is highly spoken of by continental physicians of Europe as an antipyretic agent. In order to obtain its good effects, it must be given in doses of ℈ij or more in the space of an hour. I have never practised this heroic administration of quinia for the purpose of reducing temperature, and can add nothing from my own observation to the testimony of those physicians who advocate it. It is very rarely that I have ever treated a case of typhoid fever in which I have not given quinia to the extent of ℈j or ℈ij within the first hours of treatment, for the purpose of eliminating whatever malarial pathology might be supposed to complicate the case. Later in the disease I have often given quinia during the oscillations of temperature which mark the later periods of the affection, both for the purpose of obtaining its tonic effect and also its probable good effect as a local antiseptic upon the ulcerated intestines. If the stomach does not tolerate quinia, its solution, if properly prepared, is generally retained and absorbed by the rectum. I have only further to say in regard to quinia that it is better borne by young persons than by adults, and, under my observation, is more likely to be followed by good results.

Diarrhœa is another symptom of great importance, and is seldom absent from cases of typhoid fever. It manifests itself during the first week of disease, or as soon as a hyperæmic condition of the intestinal coats of the bowels is induced by the typhoid infiltrations. In this stage of the disease it is very often advantageous to the patient to suffer the diarrhœa to go on unchecked. There are, however, cases in which this symptom is so aggravated and excessive in quantity during the first stages of the disease that it would be unwise practice to allow it to go on without interference. The practitioner must in each case exercise his own judgment as to the course he will pursue with reference to the diarrhœa. My own rule has been to endeavor to ascertain—first, if the stools are attended with a sense of relief to the patient; next, as to the amount; and, lastly, as to the condition of the patient as respects his strength and apparent capability to endure their persistence. If the stools are not exhausting, it is better for the first week of disease that they should not be too violently checked. Leaving out of view the question of elimination of the typhoid fever poison by means of the stools, so as to rid the patient of an amount of free poison in the intestines which would be subsequently absorbed, there can be no doubt that the diarrhœa does tend to relieve the hyperæmia and inflammation of the affected bowel. It seldom becomes necessary to urge the bowels to any action additional to that common to the disease. But I have nevertheless seen cases in which the administration of castor oil in teaspoonful doses every two to four hours seemed beneficial. I have, however, more often secured whatever benefits were to be derived from increasing the evacuations by large injections of water into the rectum; these injections to be given cold, provided the fever was intense. But, as a rule, the physician's energies are required to be directed to the limitation or arrest of the diarrhœa instead of its promotion. For this purpose we have nothing which can be substituted for opium. This may be given by the mouth, associated or not with an astringent; or it may be given by rectal or subcutaneous injection.

Hemorrhage is another symptom of great importance in typhoid fever. If it occurs in the first ten days of the disease, the probabilities are, as previously stated, that it is from the broken-down capillaries in the hyperæmic intestinal canal. Under these circumstances there is little danger of its becoming excessive, and physicians may trust its relief to ergot, in combination or not with some astringent, *e. g.*, gallic acid. In the latter stages hemorrhage is not infrequently a dangerous symptom, and physicians should endeavor to arrest it by more energetic practice. Gallic acid in camphor water may be given, five grains every second or fourth hour; or acetate of lead may be used. In either instance applying cold over and above the ileo-cæcal region should be resorted to. At the same time morphia may be administered by hypodermic or rectal injection. Long since, my experience taught me that intestinal hemorrhage, if properly and timely treated, was not so disastrous to life as it was once supposed to be.

Perforation is fortunately a rare event in typhoid fever. When it does occur, a fatal result is probably inevitable. My own opinion has been, that the very few instances in which recovery has occurred after supposed perforation have not, in reality, been instances in which that accident did occur, but only cases in which a suppurating gland had ruptured into the peritoneal cavity. In all cases where perforation has been diagnosed, the only treatment left us is large opiates, absolute rest, and the administration of liquid nourishment in small quantities frequently repeated.

The perturbations of the nervous system are important events to the practitioner who has care of a case of typhoid fever. The delirium of the first ten days may be alleviated by cold applications, or even in some instances by cutting the hair and the application of ice to the scalp, and the administration of bromide of potassium, or chloral hydrate. Later in the progress of the disease delirium is a more important symptom, and is due either to exhaustion, the accumulation of secondary poisons in the system the result of increased metamorphosis, or the interference with nerve function by the persistently heated blood. Insomnia and that marked form of insomnia called coma-vigil almost invariably accompany the delirium of this stage of the disease. It is of great importance that they should be relieved as promptly as possible. It may safely be asserted that if the physician regards the insomnia as the feature of these troubles which is first to be antagonized, he meets the chief indication. For this purpose we have a precious remedy in chloral hydrate.

This may be given in doses of ℈j or ʒss, or even ℈ij, if the indications are urgent, either by mouth, or by rectal injection, dissolved in milk or suspended in beef-tea. Opium or bromide of potassium may be added to it if necessary, but I have generally found that chloral hydrate is sufficiently effective without the co-operation of other drugs. Dover's powder given in doses of grs. x, at night, often produces a very desirable effect.

You will observe nothing in this lecture in regard to the treatment of typhoid fever by means of mineral acids. I must, however, admit that within the last fifteen years I have scarcely treated a patient to whom I have not given one or more of these acids. Preferably I have used sulphuric acid, but occasionally nitro-hydrochloric—in every instance diluted—in the early stages of the disease, combined with ipecac, but in the stage of ulceration and cicatrization, combined with quinia or the tincture of cinchona; and frequently with tincture of opium. It is probable these acids may exert a beneficial local effect upon the inflamed intestine and may also further the digestive processes. But I reject the theory that they are beneficial because of any alkalinity of the system supposed to be peculiar to the disease.

Neither have I called your attention to certain symptoms, which, although considered of minor importance, so far as life is concerned, are still exceedingly troublesome both to patient and physician. One of these is tympanitis. For the relief of this I have generally resorted to injections of asafœtida in water or milk, and to turpentine stupes, and sometimes cold applications externally to the abdomen. Turpentine may often be given internally with decided benefit. I must, however, in this connection, take occasion to warn you against falling into the custom so common in the South, of resting the treatment of typhoid fever upon the persistent use of turpentine. A few doses of gtt. xx in emulsion and repeated not oftener than every third hour, constitute the limits of my administration of turpentine in the recent years of my practice.

Hiccough is another annoying symptom, sometimes indeed representing the last straw upon the camel's back. Bromide of potassium, chloral hydrate, belladonna, and camphor, and blisters to the epigastrium constitute the remedies upon which I have principally relied.

Bed-sores should be anticipated as far as possible by changing the points of pressure, and rubbing the endangered parts with alcohol, camphor, or arnica.

It would seem scarcely necessary to admonish you that attention to the nutrition of a typhoid fever patient is equally important with his medicinal dosing. For the first week of the disease, patients for the most part, may be fed upon farinaceous articles and digestible fruits and milk. A very agreeable article of diet to most patients is the traditional roasted apple and milk, sometimes to be rendered more palatable by the addition of a small quantity of sugar. As soon as the diarrhœa becomes a prominent event and the patient's condition becomes more ataxic, we must resort to concentrated animal food given simultaneously with farinaceous articles, as oatmeal and maize, or given separately at alternate intervals.

Failure of the heart, as evinced by weakened pulse or cooler surface, calls in the most decided manner for alcoholic stimulants. In truth the wise physician does not wait for evidences of a failing circulation to become strongly marked, before resorting to stimulants. I can certainly say that while I may have occasionally felt regrets that I had not earlier begun with alcoholic stimulants, I can not recall a solitary instance in which their administration has been injurious in any stage of the disease, or during any state of exalted temperature.

One additional precept in regard to the administration of alcoholic stimulants and food to typhoid fever patients is proper to be pressed upon you. This is, never to allow intervals between giving food and stimulants to your patients, to be extended by a longer period than three hours at furthest. Consequently in those conditions which are termed coma-vigil, food and drinks must be placed upon the patient's tongue at intervals of two to three hours, preferably the former. If the patients are much exhausted, they must be awakened from sleep to take nourishment and stimulants. Cold drinks in some agreeable form should be frequently given to a typhoid fever patient, from the beginning to the conclusion of an attack. These may consist of ice-water, lemonade, iced tea, apollinaris water, or, in the latter stages, barley-water or decoctions of rice.

The rooms of typhoid fever patients should be kept well ventilated, and the clothing and bedding frequently changed. The hair had better be cut short at the commencement of the affection. The surface should be frequently sponged with cold or tepid water, as may be most agreeable to the patient.

The stools should be so treated as to prevent the communication of the disease to other persons. They may be treated with sulphate of iron, or chloride of zinc placed in the bottom of the vessel, or they may be mixed with sawdust and burned; or they may be buried in the ground in some situation where all danger of doing mischief shall be prevented.

Convalescence should not too hastily be said to be confirmed in a case of a patient recovering from typhoid fever. Such accidents as perforation of the intestine and paralysis of the heart, have carried off patients who had been dismissed from treatment and observation.

ORIGINAL ARTICLES.

THE VESICULAR AND BULLOUS FORMS OF ERYTHEMA EXUDATIVUM MULTIFORME.

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IT is one of the great merits of modern dermatology, that it has simplified the study of skin diseases, both by the recognition of bonds of pathological relationship between a number of apparently dissimilar manifestations of disease and by the consequent adoption of much less complicated systems of nomenclature. With the older writers the tendency was to see in each separate lesion a distinct disease, and dermatological literature was thus saddled with a confounding multiplicity of terms, while the so-called individual diseases were, in many cases, so inextricably blended, that the closer attention the student lent to their investigation, the greater was his confusion. When, therefore, it became evident that many processes that may exhibit dissimilar clinical histories and a variety of lesions, may possess a pathological unity, an immense advance was made. Not to speak of eczema, that veritable dermatological Proteus, and acne, an example of this variety of lesions is shown in erythema multiforme. Diligent clinical observation has shown that a series of morbid manifestations, beginning with simple redness and extending through the development of papules, tubercles, vesicles, and even blebs, are all connected in a closely related group, to which the name of erythema exudativum multiforme was first

given by Hebra, and which is now universally adopted.

At present, as sub-varieties of erythema multiforme, are included E. papulatum, E. tuberculatum, E. annulare, E. iris, E. marginatum (E. gyratum), E. urticatum, E. vesiculosum, E. bullosum, Herpes circinatus, and H. iris. There are here collected a series of morbid processes, the nature of which, as yet not accurately determined by microscopical investigation, clinical observation shows to be essentially identical. These different forms may blend and show all degrees of transition among themselves; they also occasionally develop transitional phases with cutaneous affections of confessedly different nature. We thus find erythema multiforme in its urticate variety exhibiting relations with urticaria, in its bullous variety, resembling acute pemphigus in its papular and tuberculated and annular varieties and when extravasations occur, merging into purpura rheumatica. This blending of the characteristic features of erythema multiforme with those of other and usually unrelated affections indicate that in cutaneous pathology, as in every other department of natural science, hard and fast boundary lines do not exist, one form of disease imperceptibly blending with another; and that our nomenclature is devoted, for the most part, to types, the limits of which pass by easy grades into each other.

Erythema exudativum multiforme, as ordinarily understood, is "a skin affection which appears with, but more commonly without, fever, in the form of bright or dark-red, disseminated or thickly clustered efflorescences, either flat or studded with central papules. It always originates as an inflammation, appears in the form of spots, papules, or tubercles as large as lentils or hazel-nuts, and is accompanied by slight itching, burning pain, or a feeling of tickling. The efflorescences are almost always situated upon the backs of the hands and feet, upon the arms and forearms, the legs and thighs, more rarely upon the body and face, exceptionally upon the throat, scalp, and ears. They either fade without scaling, or slight desquamation or pigmentation develops. The erythema comes preferably in youth, seldomer in later life." (Neumann, *Lehrbuch der Hautkrankheiten*, 1880, p. 158.) It must be distinguished from erythema from simple hyperæmia.

If the eruption consists of papules, bright red or bluish in color (from extravasation of blood), somewhat flattened, and fading after a week or ten days or longer, it is called *erythema papulatum;* if of larger papules or tubercles, *erythema tuberculosum;* if the papules fade in the centre, becoming pale or bluish, while the peripheral portion remains or extends, it is called *erythema annulare;* if new circles appear within the first-formed circle, or if varying shades of coloring are left by the fading lesion, it is called *erythema iris;* if two or more rings thus formed coalesce, the condition is known as *erythema gyratum;* if the lesions resemble the wheals of urticaria, as sometimes happens, it is called *erythema urticatum;* if the exudative process is very acute and intense, so that small vesicles are formed upon the lesion, the condition is termed *erythema vesiculosum;* and if the central portion becomes depressed and dries, the vesicles form a circle constituting ordinary *herpes circinatus;* should one or more circles of vesicles form within the original one and form centrifugal layers of vesicles or crusts, it is called *herpes iris;* where the small vesicles are replaced by large blebs, *erythema bullosum* is recognized. While these modes of manifestation constitute non-essential variations of the same pathological process, we occasionally encounter them as complications of other disorders, or as forming stages of transition. Not very unfrequently one is perplexed in determining whether given cases represent phases of erythema multiforme, or of urticaria, purpura rheumatica, ringworm, and even pemphigus acutus.

I propose in this paper to direct attention to some of the more obscure varieties of erythema multiforme, especially as exhibiting in some part of their course, sub-epidermic collections of fluid, constituting vesicles, and even blebs. As showing transitional stages between erythema annulare, or iris, and herpes circinatus, the following case is related:

CASE 1.—Mary R., 18 years old, a housemaid, of Irish parentage, applied for treatment February 24, 1876. She had an eruption that had made its appearance about the preceding Christmas. Her general health was excellent, and the eruption was the only disorder complained of. This was confined to the forearms, hands, and dorsal surfaces of the feet, and exhibited various stages of evolution, affording excellent opportunity for studying the course of the lesions. These began as minute, pearl-like papules, very itchy, situated upon small red areolæ, and of pinhead size. Within twenty-four hours the papules became larger, and their summits depressed, so that the effect of an elevated ring of eruption was given. The central depressions were often the seats of a slight serous discharge, which ceasing, the lesion gradually faded away, new lesions, however, constantly appearing. These lesions would not exceed in size the diameter of a small button, and in their stages of highest development exhibited the color characters of erythema iris. For example, there would be a red areola, within which was the annular elevation, paler in color and slightly resembling an urticarial wheal, while the color of the dusky centre gradually lost its hyperæmic redness and slowly faded, with desquamation. While this was the type of the prevailing form of eruption, there were scattered lesions that enabled one to perceive that the cause of the pearly color of the rings was serous exudation in the deep epidermic layers. Thus, flattened vesicles could be occasionally detected, the eroded summits of which discharged a thin, serous fluid. The peripheral extension of these lesions converted them eventually into flattened disks, exfoliating their scales from their pigmented surfaces. The patient was directed to take 7½ minims of Fowler's solution of arsenic, thrice daily, well diluted with water, after meals. Under this treatment the symptoms rapidly improved, but relapsed upon March 16th; and again April 22d, each time rapidly disappearing under the administration of arsenic. In the later attacks the lesions attained a diameter of one centimetre.

This case evidently closely resembled a case re-

lated by Mr. Jonathan Hutchinson in the "Descriptive Catalogue of the New Sydenham Society's Atlas of Portraits of Diseases of the Skin," part ii., page 71, and depicted in plate xxiv. My next case was somewhat similar, although the lesions were more unequivocally vesicular.

CASE II.—Thomas F., a young mulatto, laborer, 28 years old, came under treatment Jan. 29, 1876. Early in December the present eruption had appeared, first upon his hands (palms and dorsal surfaces) as little papules and vesicles. The eruption had been constantly renewed by fresh lesions, and upon his person, at his first visit, all stages of its course were represented. At scattered intervals, especially over his legs and arms, were large vesicles and small blebs or their remains. The true relationship of the lesions was revealed by a study of their symptoms. Upon the hands, for example, especially the palms, there were a number of spots, slightly elevated, and to the touch revealing infiltration and heat. These were as large as split peas, and when examined upon the pale-colored palms showed reddish areas inclosing slightly raised surfaces paler than the normal skin, while external to the reddened area were pale surfaces like urticarial wheals, but fading centrifugally (*erythema iris*). At their first appearance, these external pale elevations inclosed reddish spots which, themselves, did not have the raised whitened centres. As the spots grew older, they did not extend peripherally, but slowly faded, leaving brown desquamating surfaces. A decided tendency to chronicity was here present, as shown in the outbreak, which lasted nearly four months, almost disappearing under the administration of arsenic, but speedily reappearing when, as frequently happened, the treatment was neglected. A return of the eruption was observed the following October, which yielded promptly to the use of arsenic.

Cases such as the foregoing often offer great difficulties in reaching a correct diagnosis. Not unfrequently examples are observed where the lesions of erythema papulatum are so blended with bullous eruptions that one is enabled to recognize the relationship of the former eruption and erythema bullosum without difficulty. As an example of this may be briefly reported:

CASE III.—A young lady, stout and healthy in appearance, of slightly constipated habit, first noticed an eruption upon her skin in March, 1880. Since that time she had had it pretty constantly until I saw her, during the following September, when the eruption involved the face, neck, trunk, arms, hands (backs and palms), and feet, but not the thighs and legs, except about the ankles. The lesions began as small red spots, which rapidly became annular or circinate, and extended peripherally. Many of these rings were surmounted by vesicles and even blebs (*E. bullosum*), which were said at times to equal the size of plums. These vesicles and blebs never developed except *upon* the erythematous circles. Itching was not very intense, but burning pain was complained of. At the date of my first examination there were upon the neck and shoulders numerous narrow, bright-red, slightly elevated rings from 1 to 2 cm. broad (*E. circinatum*). Here and there clear, transparent vesicles were arranged in circles (*Herpes circinatus*). The eruption was said to be greatly under the influence of arsenic, and always disappeared when the patient was taking this drug, the object of her consultation being to secure, if possible, a remedy that would afford permanent relief. Some time previous to her visit to me, blebs had formed upon the soles of her feet, rendering her unable to walk. At my examination no blebs were detected upon the surface, but upon the fauces were vesicles of considerable size. The erythematous and vesicular lesions alone were visible upon the skin.

One cannot fail, in considering the history of this case, to be reminded of acute pemphigus, with which affection it undoubtedly presented close analogies. I think, however, that the true nature of the malady was indicated by the prevailing circinate lesions, and that the blebs were simply extreme examples of the lesions of erythema exudativum multiforme. This tendency towards more intense and rapid serous exudation is exemplified in the following case.

CASE IV.—Harry Gray, a very bright colored mulatto, 17 years old, slender, but fairly nourished, had had attacks of the present eruption during the preceding six years, at irregular intervals, but usually more severely in the spring. The present eruption appeared April 9, 1877. When seen by me, the following day, his face, neck, and portions of the trunk, were invaded by a multitude of vesicles, varying from the size of pinheads to that of peas, the smaller ones giving a rasping sensation to the finger. They were all situated upon erythematous bases, were discrete, not umbilicated, and dome-shaped. Upon the cheek a number of vesicles had developed in the form of a small circle. Upon the back of the hands and forearms, the eruption was papular. During the succeeding day, the lesions developed with great rapidity over the whole body, and many vesicles coalesced to form large blebs with clear, serous contents. Itching, which had been present at the outset, had now given place to intolerable burning, for which morphia had to be administered. At the same time there was mild, febrile movement with furred tongue. Already by the 11th, the intensity of the eruption had subsided and new lesions had ceased to appear. There was but little disposition towards rupture of the vesicles and blebs, and absolutely no moist discharge. The erythematous areolæ slowly disappeared and the bullæ and vesicles, while becoming turbid, became at the same time flaccid and shrivelled, finally collapsed, and formed light crusts. The papules upon the arms became more flattened and slowly subsided without pain or irritation. Recovery rapidly followed.

This case might have been mistaken for acute eczema or acute pemphigus. From the former it differed in the acuteness of the attack, the bullous character of the lesions, the failure to produce discharge and the rapidity of the recovery. Acute pemphigus has been made to embrace a variety of indeterminate conditions of bullous eruption, and, unquestionably, many such cases as the one I have

described have been classed as examples of this affection. Acute pemphigus is certainly exceedingly rare, and it is not impossible that most cases reported as of this disease may have really belonged to the series of affections classed under erythema exudativum multiforme, or unusual forms of several other diseases; and that acute pemphigus as a substantive malady has no existence. Beyond question the study of dermatology has been greatly simplified by such classifications as enable us to consider as parts of one essential process, the various lesions evoked in its course; and the recognition of the different degrees of alteration that may be produced, with their varying symptomatology, will greatly facilitate the work of the clinician and therapeutist, and offer a way out of many perplexing difficulties. The knowledge that erythema exudativum multiforme may manifest itself variously, and in one of its directions, by the symptoms of which I have been speaking, and that its range really includes several conditions formerly looked upon as distinctive maladies, at once places the clinician upon a firmer footing.

In conclusion, a few words concerning treatment will not be out of place. Ordinarily erythema multiforme runs through its course in from two to four weeks, and no special plan of treatment is known to uniformly effect a cure in less time than that. In the more chronic cases and especially in those more prone to relapse, and the unusual forms such as those reported here, the good effects of treatment may be expected with more confidence. I can with some degree of confidence assert, in confirmation of the experience of Hutchinson and others, that arsenic exerts a favorable action upon the course of the disease, securing a prompt subsidence of the lesions when administered in moderately liberal doses; indeed, improvement follows so promptly that it would almost seem to result from a specific action of the drug upon the morbid process. Unfortunately the improvement does not always remain permanent, and a premature abandonment of the treatment is pretty sure to be followed by a return of the symptoms, in those cases where the eruption tends to become chronic.

TWO CASES OF CEREBRO-SPINAL FEVER, WITH REMARKS ON THE ETIOLOGY, DIAGNOSIS, AND TREATMENT.

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THESE two cases, seen in private practice, have suggested to me several points of interest. Reports of single cases or of small groups of cases certainly lack the peculiar value which belongs to papers based upon collections of cases large enough to warrant broad generalizations, but they possess a value of a different kind, frequently not less positive.

Cerebro-spinal fever occurring in an epidemic form in districts where it was previously unknown, has not in all instances disappeared upon the subsidence of the epidemic. Occasionally sporadic cases continue to occur from year to year with such frequency and uniformity as to constitute the disease an endemic one in the true sense. This is, as I have recently pointed out elsewhere, the case with this disease in Philadelphia. The disease has become an abiding one with us, from sixty to ninety deaths having been ascribed to "cerebro-spinal meningitis," at the registration office of the board of health each year since 1873, the year in which the epidemic practically came to an end. These figures represent an extended, though numerically small prevalence of an affection having the characters of primary (idiopathic) cerebro-spinal meningitis and corresponding in all respects with the epidemic form. Neither at the bedside nor *post-mortem* can these cases be distinguished by any character whatever from those occurring during the destructive epidemics which have at long intervals overrun this country and continental Europe. The nature of the infecting principle of cerebro-spinal fever is involved in great obscurity—an obscurity greater than that of the cause of any of the other infectious diseases. To determine the identity or the non-identity of the causes of the sporadic and the epidemic cases, would be a long step in the direction of discovering the causes themselves. If they could be shown to be identical, the theory of a widely-distributed infecting principle (miasm) capable of a prolonged independent existence and under ordinary circumstances of feeble infecting power, would be alone tenable. In that case the development of special predisposing influences in individuals or communities would explain the sporadic or epidemic outbreak of the disease.

Incomprehensible as are the laws governing the spread of cerebro-spinal fever in epidemics, still more obscure and baffling are those which relate to the development of the sporadic cases. It is by the unremitting study of the latter, I believe, that we must attain a knowledge of the former. In the cases herewith narrated, the fact that the patients at different places had been exposed to like conditions of life, hot weather, sea-bathing, etc., sheds no light upon the causation of the attack. Thousands of persons at the same places, living the same life, failed to afford, so far as I can learn, another similar case of disease. The clinical history of these cases precludes the view of meningitis resulting from sunstroke or heat fever. The phenomena of such attacks were not present, the nervous symptoms were spinal rather than cerebral, and the evidences of an infectious rather than a simple inflammatory affection were ample. Moreover, the weather was far from excessively hot at the time of the development of each of the cases.

CASE I.—B. H., a bright, active lad of eight, whilst on a visit at the cottage of a relative at Spring Lake, N. J., was taken sick on Sunday evening, July 2, 1882, under the following circumstances: He had been at Spring Lake, a summer resort frequented by well-to-do people and never unduly crowded, for several weeks. There was not at that time any disease whatever prevailing in the settlement, which has been, since its origin, singularly free from sickness, and there was not then or in the neighborhood during the summer a single case in any way resembling that of B. H. A little

later a mild epidemic of whooping-cough made its appearance. B. H., had been constantly out in the air, but not unduly exposed to the sun; he had bathed in the surf every day. The day before he fell ill he had spent several hours in a boat fishing; the very day on which his illness began he had taken a moderately long walk, but had made no complaint of being tired, and had eaten a hearty supper of simple food. In the night he complained of being sick; on Monday morning he was feverish and vomited a small amount of undigested food. About noon he had a slight chill. I saw him July 3, towards evening. He then had slight fever, temperature 102°; pulse 120; and said his head hurt him. There were no other symptoms. Respiration not quickened; no undue redness of throat; no rash. I directed rest, regulated diet, milk and lime water, a little magnesia, and a small dose of sodium bromide at night. In the morning quinia sulphate gr. vj.

July 4.—The magnesia acted; patient passed a quiet night. Is feverish, complains of headache, but has no ringing in his ears; says that it hurts to swallow. Throat not reddened; tonsils not enlarged; no tenderness in region of angle of jaw. Tongue slightly furred. Temperature 104°; pulse 120. Chilliness, not amounting to a distinct chill, occurred about mid-day. The temperature was taken two hours later (104°). The area of splenic dulness is not increased.

Ordered sodium bromide grs. v q. s. h., and additional quinia, grs. vj, in the evening. And the same to-morrow morning.

5th.—1 P.M. Fever continues. Temperature 103°; pulse 112. Has vomited on two occasions a little mucus. About noon complained of chilliness, but it was slight and soon passed away. Swallowing still gives pain, and the head is held a little stiffly. To use the patient's own words, his neck is "Kind o' stiff." Nevertheless he can slowly turn his head from side to side and even bend his chin towards his breast. Pupils alike and react to light; neither contracted nor dilated; there is intolerance of bright light. There is tenderness over abdomen, but careful examination makes it evident that it is hyperæsthesia of the skin, not deep tenderness. The spleen is not enlarged. It is now evident that the illness is neither intermittent nor remittent fever. The quinia is discontinued. The sodium bromide is increased to grs. viij q. s. h., and with each one he is to have morphiæ sulph. gr. $\frac{1}{16}$.

6th.—A quiet night, but complains of pain and stiffness whenever awake. Bowels constipated. There has been occasionally slight vomiting without nausea, a little mucus or the milk, as the case may be, being thrown up. There is no longer any doubt about the diagnosis.

11 A.M.—Temperature 104.5°; pulse 120. 7 P.M. Temperature 105.2°; pulse 128. 10 P.M. Temperature 104.5°; pulse 140.

Pupils slightly contracted; patient disposed to sleep, but easily roused; mind clear; answers questions clearly, but constantly when awake complains of pain in back of neck. There is thirst and entire disinclination to take food.

7th.—Thirst less urgent; skin moist; lips slightly bluish. Heart sounds clear; no murmur. No disposition to vomit.

8 A.M. Temperature 103°; pulse 134; respiration 40. 5 P.M. Temperature 103.5°; pulse 120; respiration 35. 10 P.M. Temperature 101°; pulse 120; respiration 28.

Bowels, which have been constipated for several days, relieved by calomel in one-grain doses morning and evening. Brandy, a teaspoonful every fourth hour, and a four-grain suppository of quinia night and morning has added to the treatment, the morphia being at the same time reduced to gr. $\frac{1}{32}$ q. s. h.

8th.—Condition the same. 10 A.M. Temperature 102°; pulse 120; respiration 30. 7 P.M. Temperature 101.8°; pulse 120; respiration 36.

9th.—Decided improvement; had a good night; lips have lost lividity; head-pains have ceased; can move head from side to side and forward, and without pain, but still stiffly A plentiful eruption of acne has resulted from the bromide, which has been given less frequently for a day or so and is to-day stopped. P.M. Temperature 101°; pulse 120; respiration 36.

10th.—Improvement continues; strength better; asks to get out of bed. 10 A.M. Temperature 99.8°; pulse 100; respiration 32.

11th.—Complains of right shoulder, when upon examination I found a patch of herpes as large as a silver dollar. The morphia discontinued.

13th.—Fully convalescent.

16th.—To-day the patient was allowed to go to drive. From this time he rapidly gained strength, and continued well until his return to Philadelphia, in September. There were no sequels.

This case presented at the onset the characters of an ordinary intermittent fever and was so regarded by the friends of the patient and by myself until the third day. It was in fact an example of the so-called intermittent variety of cerebro-spinal fever. In this view, Drs. Hughes and J. M. Adler, gentlemen who saw this case with me, and who had abundant opportunities of seeing the disease in its epidemic form some years ago, unhesitatingly concurred.

Points of importance in the differential diagnosis from intermittent fever early in the attack, are the irregularity of the periodicity, the headache between the chills, and the failure of quinia to influence the fever even in doses of six grains twice a day for a child of eight. Later all doubts as to the nature of the sickness was settled by the development of spinal symptoms. I regard the outbreak of herpes upon the shoulder as of diagnostic moment.

CASE II.—The evening of Sept. 7, 1882, I saw, with Dr. Ellwood Wilson, Miss E. H., aged 18, at her home in this city. She was then about seven or eight days ill, and presented symptoms of the gravest character. I learned that she had spent part of the summer at Atlantic City, and had been whilst there in good health until the day before returning home, when she was observed to be somewhat listless and disinclined to exertion. She came to Philadelphia Aug. 29th, and although feeling out of sorts went, in accordance with previously ar-

ranged plans, with her mother, on Aug. 31st, to Elmira to visit friends. Upon her arrival there, she became at once seriously ill with headache of great intensity, nausea, stiffness of the neck, and nocturnal delirium of a distressing kind. Her mother was ordered to bring her home, where she arrived after a journey of great suffering, Sept. 5th. Her condition from this date was that of extreme illness, with great depression. On the 7th, the following notes were made at the bedside: A tendency to constipation has existed from the beginning of the sickness; the bowels have acted only once or twice, and that under the influence of medicines. The nausea which was distressing in the early days of the attack has ceased; there is no vomiting. The tongue is covered with a thick, whitish paste; there is slight tympany, but no abdominal tenderness, although it is carefully sought for, enteric fever being borne in mind. This suspicion is favored also by the fact that two or three days ago there was a slight attack of bleeding at the nose. There is painful stiffness of the neck and retraction of the head. The patient lies quietly, with her head burrowed back into the pillows, and objects to being disturbed. The headache has ceased; there is great intolerance to sounds, but moderate light does not disturb her. There is general hyperæsthesia of the skin. She cries out when even lightly touched. The pupils are of moderate width and react very sluggishly to light. They are alike; there is no squint. Occasionally slight general convulsive movements are observed. Pulse 128, full, but very compressible. Skin dusky and feet cool. There is no eruption. Mind perfectly clear. Urine highly albuminous, and up to this time not decreased in quantity.

8th.—Skin very dusky. Pulse full, soft, and very irregular, both as regards frequency and force. It fell, after the hypodermic injection of two fluid-drachms of brandy, from 140 to 120 beats per minute. Without this influence I found it varying 20 beats within ten minutes. Urine scanty and albuminous. It was not examined microscopically. Heart sounds clear and sharp; no murmur. Right lung deeply congested; respirations 40 per minute. The area of splenic dulness is not increased. The head is still retracted as yesterday; the hyperæsthesia intense over abdomen, chest, arms, and legs; the patient is dull (somnolent), but can be aroused. She dislikes being disturbed. Death took place in the afternoon. No examination of the body was permitted.

The following pulse and temperature observations were recorded:

Sept. 6th.—1 P.M. Pulse 100; temperature 102.9° 8 P.M. Pulse 104; temperature 101.5°.

7th.—9.30 A.M. Pulse 96; temperature 101.3°. 6 P.M. Temperature 105°. 8 P.M. Pulse 128; temperature 105.1°.

8th.—8 A.M. Temperature 105°. 9 A.M. Pulse 140; temperature 104°. 12 M. Temperature 103.5°.

The treatment from the time of the patient's return to Philadelphia consisted of artificial heat to surface of the body and limbs, free stimulation with brandy and champagne, small doses of morphia combined with ammonium bromide and sodium bromide, and calomel. What the treatment may have been previous to her starting upon the journey home, we could not learn.

The problem in diagnosis presented by this case related to the possibility of its being a case of enteric fever with spinal symptoms, first seen by Dr. Ellwood Wilson and myself, in a condition of collapse from some obscure intestinal lesion. It is true that in a small number of cases of enteric fever, and commonly in females, rigid contractions of the muscles of the trunk, extremities, and even of the neck, have been observed; cutaneous hyperæsthesia has also been reported in rare instances by competent observers. In enteric fever, as known to American practitioners, these are very uncommon symptoms.

Bearing in mind the possible recurrence of such symptoms in enteric fever, we were led to the closest scrutiny of the clinical features of the case. The abrupt onset of the sickness, which amounted to a formidable illness by the fourth day; the speedy failure of the vital forces, a condition approaching collapse developing by the end of a week; the brief illness; the early nausea, delirium, and frantic head-pains; the constipation, slight tympany, small spleen; tense, painful rigidity of the neck muscles; the exquisite and widespread hyperæsthesia; the intolerance of sounds, and the convulsions constitute a complexus of symptoms characteristic of cerebro-spinal fever, and widely at variance with enteric fever even in cases of anomalous kind.

It is to be regretted that an examination after death could not be made.

In general terms the treatment by the bromides, by opium or its derivations given early, and in full doses, calomel occasionally for its purgative effect, absolute rest and quietude, stimulus and artificial external warmth in the period of depression, and bland nutritious food in moderate quantities, promises both in theory and by experience the best results. In respect of the journey, the patient's mother spoke of her sufferings as *indescribable*. Nothing but the most urgent necessity can justify medical permission to a patient suffering from such an illness as this to take a long railroad journey to reach home.

MEDICAL PROGRESS.

INTERMITTENT FEVER AND ENDOCARDITIS.—LEYDEN divides his cases into four groups: first, cases where the endocarditis depends upon pyæmic and septic processes; second, cases where the endocarditis is associated with an irregular febrile process and erratic chills; the third and fourth groups consist of cases in which the causes of the fever correspond more or less closely with a typical intermittent fever, with paroxysms and states of apyrexia, not, however, always at perfectly regular intervals, though they may resemble a perfect quotidian or tertian type. These cases he again divides into two other groups, viz., intermittent fever without any previously evident heart lesions, and intermittent fever occurring in an individual with some compensated heart lesion. He believes that such cases are not invariably fatal.—*Centralb. f. d. Med. Wissen.*, November 4, 1882.

TUBERCULAR ULCER OF STOMACH.—DR. PISEK, of Lemberg, records (*Deutsche M. d. Zeit.*, No. 41) an instance of the above disease in the dead body of a man thirty-five years old. There were cheesy nodules in the right lung and peritoneum, with also some translucent tubercles in the latter. The mesenteric glands were enlarged and cheesily degenerated. The stomach was moderately large. On the pyloric region of the serosa, which was adherent to the liver, there were some semi-transparent tubercles. The ulcer existed on the mucous membrane near the pylorus on the posterior wall, was rather more than an inch long, and about an inch wide, of oval form; the edges were ragged, thin, undermined slightly, of gray color, and here and there infiltrated with yellowish granules the size of a pin's head; the ulceration extended as deep as the muscular coat. In the duodenum were two similar ulcers; nothing else in the rest of the intestines. No history of the patient's illness is given. Primary tuberculosis of the stomach is unknown. Tubercular disease of the stomach may, however, exist without affection of the rest of the alimentary tract. The diagnosis is not possible during life.—*Medical Times and Gazette*, November 11, 1882.

TREATMENT OF CHANCROIDS.—In relating his experience in the Lock Wards of the Edinburgh Royal Infirmary, MR. A. G. MILLER says that his treatment of chancroids has been modified very much, and latterly simplified, and also, he is sure, much improved, since the introduction of iodoform as a remedy. He used to cauterize these sores, especially when phagedænic, destroying them with caustic potash or chloride of zinc. Now he simply dusts them with iodoform powder and keeps them dry, and they invariably heal up in a few days.

Iodoform is especially useful in the female on account of its power of diffusing itself and penetrating into corners. Formerly, with the caustic treatment, he was never certain that he had destroyed all the sores, and knew that if one was left the chancroidal action would reproduce itself. Now he can be perfectly certain that if he puts on the iodoform freely the disease will be thoroughly checked. The action of iodoform on phagedænic sores is even more remarkable than on ordinary chancroids. His experience is that 24 hours, or at most 48, are quite sufficient to establish a healthy action in the sores. He uses the iodoform pure, the crystals being pounded to a fine dust, which is blown on to the parts affected by means of an instrument consisting of a wooden tube, widened out at the centre, where the powder is placed, and then blown out at the nozzle by pressure (with the thumb) on the India-rubber ball placed at the other extremity. When the labia are held aside by means of Dr. Henderson's forceps in the hands of an assistant, the surgeon can blow any quantity of the powder that may be necessary directly on the affected parts, and as these are always damp, a sufficient quantity of the iodoform adheres to destroy the septic action of the sores. If all the sores are not reached at first, a second or third application may be necessary. Generally there was sufficient dusted on to act on all the sores, even those that were out of sight.

Chancroids on a syphilitic person run an ordinary course, but are apt to be followed by condylomata.—*Edinburgh Medical Journal*, November, 1882.

IRRIGATION OF THE BOWEL IN DYSENTERY.—At the meeting of the Cincinnati Academy of Medicine held October 30th, DR. WHITTAKER called attention to the obstinacy of chronic dysentery to treatment. Mr. Ward, of London, said that those cases that lasted longest, and finally got well, had least to do with therapeutics. The speaker had recently, at the Good Samaritan Hospital, a case of dysentery with fifteen to twenty discharges in the twenty-four hours. When the patient was first seen she had been in the hands of several physicians, and her case seemed hopeless. He gave her large doses of ipecac, thirty grains every four hours, in the beginning. The second dose controlled the discharges, but after the third or fourth powder they again became very bad. He then thought of trying irrigation of the bowel with a solution of nitrate of silver, after the method recommended by H. C. Wood, one and a half drachms to three points of water. This was carefully injected and the effect was very marked, the patient having but one stool in twenty-four hours. The collapse disappeared, but the next day the dysentery returned. He then gave two or three doses of opium to the patient to stimulate the brain, but it seemed to give her great discomfort. The second day the dysentery returned, when he again repeated the injection, but instead of nitrate of silver he used a solution of alum, one drachm to the pint of water, injecting as large a quantity as possible, which in this case was three pints. The discharge then ceased, and since then the patient has entirely recovered.

The irrigation method is nothing new in the treatment of dysentery. Sydenham treated his patients by drenching them with water, both by mouth and rectum. Aretaus spoke also of washing out the bowel, although neither of the old writers mentioned astringents.

Stephen McKenzie, of London, has recently advocated irrigation in this way, showing that no force was necessary, all that was needed being simply to pour in the water from a funnel and tube. It is a very great question if the action of the astringent has so much to do with the case as the flushing out of the detritus and the poisonous germ. The failure of the ipecac in this instance shook the speaker's faith in this remedy though he had seen chronic cases cured by ipecac in two days. He was under the impression that it would relieve almost any case except where there is an hepatic abscess. This was the second case where ipecac failed in the practice. The best results have usually come from the recent or acute cases.

In concluding the discussion, Dr. Whittaker said that the suggestion had been made that the distention of the bowel might as much have caused the beneficial result as the flushing out. As the bowels are frequently very much distended with gas where the disease is very severe, certainly the mechanical dilatation does not amount to anything. It is no longer tenable to exclude micro-organisms as a cause, because of chronicity of an affection, as the greater forms of life, like trichinæ, have been found in the tissues after twenty years. Dysentery is a disease which constipates the bowels, the scybala acting as irritants, hence it requires laxatives, not astringents, in its treatment. The truth is the internal use of astringents is contraindicated in every stage.

One of the gentlemen thought that the injection might be more efficacious in our latitude than in warmer climates. The speaker would remark that it was just in a warm climate, the East Indies, where the irrigation treatment was used with such success. Its failure in many cases may be due to the fact that the method was not carried out properly; the fluid must be allowed to run in so as to completely inundate the bowel. The large bowel in a full-grown male will hold six imperial pints.

Another member thought the disease might be due to exposure to cold. That theory may hold good in some cases, but the prevalence of the disease also in hot weather will not refer every case to this cause. Cold weather often puts a stop to epidemics of this disease. The contagiousness of the disease is also pretty

generally accepted. Formerly the explanation of a *locus minoris resistentiæ* was deemed sufficient to account for the cause of this, as of any disease after exposure, but the direct explanation has been afforded by the experiments of Pasteur with the attenuated virus of fowl cholera that a reduction of temperature will permit the growth of micro-organisms that would not grow without it.

As the disease is simply local and not constitutional, the secret of its treatment lies in topical measures, just as we treat any other local disease. It is necessary with the irrigation treatment that the quantity of fluid be large. Some agents are used with the water, not wholly without danger from being absorbed and setting up unpleasant constitutional results. Thus carbolic acid may prove dangerous from the absorption of the poison by the vast denuded surface of the intestine. So also unpleasant results may follow the use of nitrate of silver—argyrosis—so that a solution of common salt should be at hand to follow it. In the case reported the disease yielded so immediately to the alum irrigation that no matter what theory was propounded, the relation between cause and effect was clearly shown.—*Cincinnati Lancet and Clinic*, November 18, 1882.

SCARLATINIFORM ERYTHEMA IN THE COURSE OF ACUTE RHEUMATISM.—At the meeting of the Société Médicale des Hôpitaux held October 13th, M. HALLOPEAU reported a case of acute rheumatism in which there occurred an intensely red, livid eruption on the entire body, accompanied by chilliness and exacerbation of the febrile movement and malaise, but with no anginose symptoms; the temperature of the skin to the touch was greatly increased. This lasted one week and then desquamation commenced in the form of white scales on the face and in large patches on the trunk and limbs. Three days later, pericarditis occurred, accompanied by intense dyspnœa and pulmonary congestion, and proved rapidly fatal.

At the autopsy there was found a marked thickening of the corneal layer of the epidermis and decided projection of the papillæ. The patient had had a similar attack accompanying an attack of rheumatism four years previously.—*Journ. de Méd. de Paris*, November 4, 1882.

ABORTIVE TREATMENT OF FACIAL ERYSIPELAS.—NORREGARD (*Nordisk med. Arch.*, vol. xii., No. 27) has several times checked the progress of facial erysipelas by drawing a thick ring of collodion around the affected part, not over the whole surface, as by others. Dr. Christie mentions a similar case, in which the swollen skin bulged over the ring without being able to pass the barrier. The ring must be strong, especially on the bearded portion of the face.—*Arch. of Dermatol.*, October, 1882.

ALBUMINURIA IN PHTHISIS.—DR. CAILLERET, in a well-written thesis (*Paris Médical*) upon this subject, arrives at the following conclusions:

1. Albuminuria in the tuberculous is found in about one-sixteenth of the cases, according to the different statistics given.

2. Albuminuria is always a serious complication of phthisis; it may be transient or permanent.

3. Transient albuminuria in phthisis, as in all consumptive diseases, is a dyscrasic albuminuria, connected with a renal congestion; when permanent, it is dependent either on a tuberculous, epithelial, or interstitial nephritis, or upon an amyloid degeneration of the kidneys.

4. Albuminuria does not seem to influence the progress of pulmonary phthisis, or to hasten the evolution of tubercles.

5. The prognosis is always grave when there is a permanent albuminuria, for there can be no hope of cicatrization of the pulmonary lesions.

6. Milk diet is the one which has given the best results, and which ought to be applied, together with astringents.—*St. Louis Medical and Surgical Journal*, November, 1882.

THE TEMPERATURE DURING MENSTRUATION.—DR. KERSCH, of Prague, has drawn up a table of temperatures during menstruation, from which it appears that the normal temperature is not the same in all individuals; it varies between 99° and 97° Fahr. Moreover, during the first days of menstruation the variations in temperature are sometimes more, sometimes less (from 100.5° Fahr. highest, to 98.8° Fahr. lowest). From the second day onwards the temperature gradually sinks, so that on the day after the cessation of the flow it is again normal. It further appears that the process of ovulation sets in with a rise of temperature, which, in youthful individuals, may be as much as nearly 2° Fahr., and is at least 1.25° Fahr. According to Dr. Hennig, of Leipzig, the body-heat rises to about 99.5° Fahr., and again sinks to 98.5° Fahr. before the period, mounts again to 99.5° Fahr. on the day on which the flow begins, falls off shortly before the termination of the period to 97.5° Fahr., then rises again to 98.5° Fahr., at which it remains during the cessation, and immediately afterwards falls to 97.5° Fahr.—altogether three waxings and wanings: one before, one at the beginning, and one at the ending of the process. Hennig did an ovariotomy on a woman, aged forty-eight, whilst the menses were present, and noted the same evening a temperature of 101.3° Fahr. in the axilla, the pulse not being accelerated. The temperature next day was 101.5° Fahr., and on the third day after the operation 99.5° Fahr. This state of heat of the skin the author thought to be due to the menses. In another case of ovariotomy on a girl aged twenty, where menstruation came on seven days after the operation, the body-heat rose 2.5° Fahr.; the rise of temperature fluctuated during the menstrual period between 1.5° and 2.5° Fahr. (Hennig), and 1.25° to 2.0° Fahr. (Kersch).—*Medical Times and Gazette*, November 11, 1882.

THE PATHOLOGY OF ROUND ULCERS OF THE STOMACH.—QUINCKE reports some experiments made by his pupil, Daetwyler, as to the pathology of gastric ulcers. These experiments showed that in dogs with gastric fistulæ, mechanical, thermal or chemical stimulation of the gastric mucous membrane produces very little effect, and that even when a circumscribed piece of tissue is removed by ligation and cauterization, it rapidly heals, leaving a circular depressed cicatrix; even when the loss of tissue is very deep, healing occurs in from fifteen to twenty days, when the dogs are in good health. When, however, they were rendered anæmic by previous bleeding, healing was very much delayed, and the constitutional effects were much more marked. So, also, while ordinarily in the human stomach loss of tissue can be rapidly repaired, in anæmic or chlorotic subjects, in whom the processes of nutrition are inactive, they may become chronic and degenerate into ordinary chronic gastric ulcers.—*Gaz. Méd. de Paris*, November 4, 1882.

THE ETIOLOGICAL RELATIONS OF THE BACILLUS TUBERCULOSIS TO TUBERCULOSIS.—DR. H. F. FORMAD, Lecturer on Experimental Pathology in the University of Pennsylvania, has been conducting an elaborate series of researches on this subject, from which he draws the following deductions.

1. The predisposition to tuberculosis in some men and animals, the so-called scrofulous habit, lies in the

anatomy of the connective tissue of the individual, the peculiarity being a narrowness of the lymph-spaces, and their partial obliteration by cellular elements.

2. Only beings with such anomalous structure of connective tissue can have primary tuberculosis, and such animals invariably do become tuberculous from any injury resulting in inflammation, or from repeated injuries.

3. Scrofulous beings can have no other than a tuberculous inflammation, although it may remain local and harmless.

4. Non-scrofulous men or animals may acquire the predisposition to tuberculosis through malnutrition and confinement, the latter bringing on the above-mentioned anatomical peculiarities in the connective tissue.

5. No external etiological influences are necessary to cause tubercular disease other than those which ordinarily produce inflammation, and even scrofulous beings will not become tuberculous unless local inflammation is set up. No inflammation, no tuberculosis.

6. Non-scrofulous animals, so far as can be established now, may acquire tubercular disease through injuries of serous membranes, viz., peritoneum, pleura, etc., and even here without any special virus whatsoever. Clinical observations on the post-mortem table show similar conditions and prove the same in man. (Dr. Formad also claims that Koch's own experiments are also in favor of this proposition; but that he has overlooked this.)

7. The bacilli, which it is the merit of Koch to have first proved to infest tissues affected by tubercular disease, are not necessary for its causation, even if a special organism exist and be really possessed of such property. The presence of bacilli (so far as our present research goes) is secondary, and appears to *condition* the complete destruction of the tissue already diseased and infested by them, and this destruction is in direct proportion to the quantity of the organisms, which thus regulated the prognosis. The tubercular tissue seems to serve merely as a nidus for the growth of the bacillus.

8. From the results of microscopic examination, from numerous observations upon the post-mortem table, and on clinical grounds, he has come to the conclusion that phthisis is not a specific infectious disease, but that the individuals suffering from tubercular disease are specific themselves originally, and form a special species of mankind, the "scrofulous."

9. Scrofulosis is a condition which may arise from malnutrition and seclusion in any being, and thus may be produced artificially. It always depends upon the demonstrated anatomical changes in the connective tissue.

10. An analysis of Koch's experiments shows that he has not proved the parasitic nature of phthisis, or that there exists a special Bacillus tuberculosis; so that the infectiousness of tubercular disease is still *sub judice.*—*Philadelphia Medical Times*, November 18, 1882.

CYSTIC TUMOR OF NECK; INCISION; SUPPURATION; SUDDEN HEMORRHAGE: DEATH.—The following case occurred under the care of MR. SAVORY, in St. Bartholomew's Hospital: A. B., a cabman, aged fifty years, was admitted into Abernethy Ward, St. Bartholomew's Hospital, March, 1870, under Mr. Savory's care. He presented a soft swelling on the right side of the neck, coming from below, and partially overlapping the sterno-mastoid muscle. The presence of fluid being suspected, a small incision was made into the swelling, and some two or three ounces of clear cystic fluid were evacuated. During the next three days a slight discharge continued, which then became purulent; this continued during the next ten days. At midday the ward-sister was called to the patient, who was sitting up in bed, with a jet of blood spurting out through the sinus. The Surgical Register, who happened to be in an adjoining ward, was immediately summoned, and arrested the hemorrhage by digital pressure on the carotid. Mr. Savory upon seeing the patient half an hour later, sent him at once to the theatre, Mr. Symonds still continuing pressure on the wound. After anæsthetizing, the finger was removed, when the hemorrhage at once recommenced. Mr. Savory laid the sac freely open, and turned out a quantity of blood-clot. After careful search the bleeding orifice could not be found; the pulsation of the carotid was felt in the deeper parts of the wound. The artery was therefore cut down upon by slightly extending the incision, and tied with a silk ligature. The patient, however, who was much exhausted before the operation commenced, never recovered consciousness. He died comatose next day.

At the autopsy an opening was found in the external carotid artery about half an inch above its bifurcation. —*Medical Times and Gazette*, November 11, 1882.

PEPTONURIA.—DR. RUDOLF JACKSCH shows that peptonuria is rarely met with in infectious diseases, or in pernicious anæmia, or leukæmia. The absence of peptonuria in the latter disease is remarkable, since the blood in such cases is usually found to be rich in peptone. Peptonuria generally occurs in the stage of resolution of pneumonia, and lasts ordinarily for two days after the process is completed; so also in cases of pleuritic exudation, peptone is generally found in the urine, and usually in increased amount when resorption commences. Peptonuria can also be detected in meningitis, in phosphorus poisoning, and in cases of scorbutus.—*Wiener Med. Presse*, October 22, 1882.

SYPHILITIC AFFECTIONS OF THE EYELIDS.—DR. THEODORE WIETHE contributes three cases of lid-syphilis under as many forms, viz.: 1. Initial sclerosis of the lower lid. 2. Ulcerated papule of the upper lid. 3. Gumma of the lower lid. He introduces the statistics of Zeissl, who, among 40,000 cases of syphilis, saw only eight of affections of the lid, and remarks that the oculist meets with but one undoubted case of syphilis of the lid in 10,000 eye patients. A lengthy description of each case is given, with references by comparison to the cases of Arlt, Hirschler, Desmarres, and Galezowski. Treatment consisted of iodide of potash, inunctions of mercury and iodoform locally: recovery followed in each case. It is worthy of note here, that the microscopical examination of a section of the gumma taken from its groundwork gave swollen fibrillæ of connective tissue.—*Arch. of Dermatol.*, Oct. 1882.

THE ELASTIC BANDAGE IN THE TREATMENT OF VARIOUS SURGICAL DISEASES.—SÉE (*Bull. de la Soc. de Chir. de Paris*) speaks highly of the elastic band in the treatment of the following diseases: 1. Œdema of the limbs due to cardiac, hepatic, or venous disease, or to cachexiæ. 2. As an adjuvant to massage in the treatment of sero-plastic effusions remaining after diffuse phlegmon. 3. Interstitial effusions of blood due to contusions, etc. 4. Chronic serous arthritis after acute joint disease. 5. Circumscribed or diffuse inflammation in all stages of its development. The elastic support here replaces the weakening poultice, and is, besides, superior to the latter through its influence over the blood-flow. 6. Ecthyma of the limbs, and ulcers (atonic, callous, varicose). 7. Recent sutured wounds. The bandage is here applied over a Lister's dressing. Certain general precautions are to be observed, such as extremely slight pressure, exact overlapping of each turn, and the elastic band to be changed every two or three days and washed in a solution of carbolic acid.

The bandage acts by its constant equable pressure, it also retains the cutaneous secretion (thus acting more or less as a tepid compress or poultice), and by preventing the entrance of spores, etc., effectually aids the antiseptic dressing.—*Edinburgh Medical Journal*, November, 1882.

TREATMENT OF EPILEPSY.—DR. SAUNDBY read a paper before the Midland Medical Society, on October 25th, on the treatment of epilepsy, in which the following points were insisted on.

1. The value of combining the bromides of potassium, sodium, and ammonium, as recommended by Professor Brown-Séquard; 2. The advantage of adding tincture of digitalis, and sometimes theine, to the mixture, to counteract the depressing influence of the bromides; 3. The utility of zinc as an adjuvant in the treatment; 4. The successful use of borax in some cases of obstinate epilepsy, of which two illustrative cases were given; 5. The value of theine or caffeine and nitro-glycerine in the treatment of epileptic vertigo.—*British Medical Journal*, November 11, 1882.

LUNG WITH IMPACTED FOREIGN BODY.—DR. NORMAN MOORE, at the meeting of the London Pathological Society held November 7th, showed the right lung of a girl aged twelve years, who died of typhoid fever. The lung was partially collapsed, and in its lowest lobe were several reddish patches. In one of these, near the pleural surface, was fixed a spicule of bone, one-third of an inch long. The spicule, which looked like the neural spine of a fish vertebra, had one end in a minute bronchus, the wall of which it had penetrated. Four years ago the child was suddenly seized with pleurisy. She was tapped in St. Bartholomew's Hospital, pus was let out, and, as the wound continued to discharge, a drainage-tube was put in. The child attended with this as an out-patient, and at length the wound was closed. The scar was distinct, and beneath it the lung was firmly adherent to the chest-wall. The spicule of bone, passing deep into the lung, probably set up a pneumonia, which was followed by the empyema four years ago. The empyema was concluded, but the bone remained fixed in the lung—a very exceptional circumstance. The typhoid fever of which the girl died was remarkable in the large extent of intestine affected, and in the fact that the middle part of the vermiform appendix was externally tumid, and internally ulcerated all round. Perforation of the vermiform appendix had occasionally been a cause of death in typhoid fever, and had been ascribed to a condition preceding the fever. In this case, and in another post-mortem which he had lately made, the ulceration of the vermiform appendix was clearly one of the results of the typhoid fever. A further point of interest was that in the middle of the epiglottis there was a small ulcer.—*Medical Times and Gazette*, Nov. 11, 1882.

CHRONIC INTERSTITIAL HEPATITIS.—From numerous experiments DR. MAFFUCI (*Lyon Médicale*, September 3, 1882, from *Il Movimento, Giron. dei Scien. Med.*, 1882, No. 2) has formulated the following statements:

1. Hepatic cirrhosis is always situated in the tissues surrounding the portal vein.

2. The periphlebitis is produced by the presence of chemicals or virulent poisons in the blood circulating through the vein.

3. The inflammatory process is similar to that which is observed in all the other organs; it is characterized by hyperæmia with migration of leucocytes, and by the organization of the exudations.

4. The periphlebitis is perfectly distinct from the interstitial inflammation of the liver provoked by the presence of biliary calculi.

5. The serious affection of the nutrition of the hepatic arteries determines the necrobiosis of the liver.

6. The interstitial alterations of the liver provoked by the arterial lesions are very different from those caused by the periphlebitis.—*Glasgow Medical Journal*, November, 1882.

ACETAL AS A HYPNOTIC.—DR. VON MERING read a paper, at the recent meeting of German philosophers at Eisenach, on the value of acetal as a hypnotic (*Berliner klin. Woch.*, October 23). Acetal is a volatile fluid of ethereal odor, sparingly soluble in water, though some of its derivatives are very soluble in alcohol and water. Experiments were made on frogs, rabbits, dogs, and cats. Acetal first acts on the cerebrum, causing gradual loss of consciousness; it then paralyzes the functions of the spinal cord and medulla oblongata, stopping the breathing before arresting the action of the heart. The drug has been administered subcutaneously, by the mouth, and by intravenous injection. Asphyxia, or rather apnœa, was the cause of death when that result ensued. It is remarkable, says the author, that such bodies as alcohol, ether, paraldehyde, acetal, and several other bodies not containing chlorine, act primarily and more powerfully on the respiratory centre; whilst after the administration of such substances as chloroform, chloral hydrate, and bichloride of methylene, the circulation and respiration are pretty equally affected. Eight experiments only with acetal have been made on men; six times there was a notable effect, both in the relief of pain and the procuring of sleep. Further details are promised.—*Medical Times and Gazette*, Nov. 11, 1882.

A THEORY AS TO THE UNITY OF ORIGIN OF RHEUMARTHRITIS, CARDITIS, AND CHOREA.—MR. WILLIAM STEWART gives the following as a *résumé* of his theory:

1. Follicular tonsillitis, by the process of mild inflammation, originates the discharge of altered white blood-corpuscles through the follicular openings on the tonsils. 2. These, or others in the tonsils not extruded, are reabsorbed into the blood by the lymphatic vessels through the glands at the angle of the jaw. 3. By the initial inflammation, the white blood-corpuscles are deprived, to a certain extent, of their normal physiological qualities; and to the same extent as they have been devitalized they acquire pathological properties, by virtue of which they have an intensified tendency to adhere to the inner walls of the capillaries and to one another, and also to pass through the capillary walls into the connective tissues, and there form deposits. 4. They in this way become pathogenetic cells, and produce disordered nutrition and perverted functions in those organs in which they are interrupted or extruded, and thus establish the phenomena of disease. 5. These devitalized cells are revitalizable, and therefore the diseases which they produce as a rule terminate in recovery. 6. This theory explains the altered blood-condition observed in these affections, which is established by repeated absorption of cells or by the individual cells communicating to other cells they meet in the blood the same impress which they have already received. 7. It accords with the apparent origin of rheumarthritis from damp and cold, and of chorea from fright, by according to them the power only of acting as exciting causes. 8. It does away with the necessity of a causal connection between any members of the group; and, finally, that it explains, in a rational and probable manner, the known clinical connection between, and the morbid anatomical conditions existing in, the various diseases of the group.—*British Medical Journal*, November 11, 1882.

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DEATHS FROM CHLOROFORM.

OUR esteemed contemporary, the *Virginia Medical Monthly*, in its issue for last month, contains the record of a case of death from the administration of chloroform as an anæsthetic. The report is made by Dr. Hunter McGuire, and is characterized by the fidelity to truth, which any one, who has any knowledge of his good qualities, must expect from this distinguished surgeon. The account is very circumstantial. Whilst Dr. McGuire sat with his finger on the pulse, the inhalation proceeding, "the pupils of both eyes slowly dilated to two or three times their natural size." Dr. McGuire, probably somewhat startled, "spoke to her, and she answered intelligently," but as she spoke "the pulse suddenly stopped; it did not flutter and gradually fail, but abruptly ceased . . respiration continued for some seconds after the pulse ceased beating at the wrist." Dr. McGuire attributes the sudden cessation of the circulation to "cardiac paralysis." It is not often that the attendant phenomena are so coolly and dispassionately observed as they were in this instance; hence the case has peculiar value as an illustration of one mode of dying from chloroform. Preliminary examination of the heart and lungs disclosed no signs of disease of these organs. "About one drachm of Squibb's chloroform" was first poured on the towel, and the inhalation had proceeded about two minutes when the heart was paralyzed.

Dr. McGuire has operated under chloroform narcosis and has administered this anæsthetic, in all some thirteen or fourteen thousand times, without accident, except in one case, where the fatal result may have been fairly attributed to other causes. We may, therefore, assume that all the usual conditions had been faithfully observed, and that the inhalation was conducted with strict attention to the necessary details. Yet within five minutes after commencing the inhalation the patient was dead.

What is the lesson of such a death from chloroform? In the absence of any apparent cause what is the explanation of this untoward result? There are two elements of prime importance. First, the mode of inhalation. We have more than once in these columns insisted on the danger incurred by the administration of chloroform in the mode pursued in this instance. We are perfectly well aware that no method of administering anæsthetic vapors is more common. A towel converted into a cone having an opening at the apex is the usual inhaler employed. The chloroform poured into the interior of the cone is rapidly vaporized. In the case of Dr. McGuire, the cone was not at once applied to the mouth and nose. In the language of the report it is stated, "To avoid the danger of giving the vapor in too concentrated a form, the napkin was first held several inches from the face and gradually brought closer to her mouth and nose."

The least consideration of the vapor-density of chloroform ought to satisfy any one that, given in this way, the air is almost entirely displaced by chloroform, and hence, notwithstanding that the towel-cone is held some distance from the mouth and nose, for the most part chloroform-vapor must necessarily be inhaled for much of the time. As the proportion of chloroform-vapor to air should be not more than three or four per cent. to insure the safety of the inhalation, it is obvious that this canon is violated when the manner of inhalation is practised as in Dr. McGuire's fatal case.

In our comments on another recent case, that of Dr. Kinloch, of Charleston, we insisted on the observance of that maxim which, in the case of chloroform-vapor, requires a proper admixture of air. In the usual methods now employed for the inhalation of this agent, too little attention is paid to this point. Chloroform is either poured on to the interior of a cone made from a towel, or is dropped on a cloth laid over the patient's mouth and nose. In either case the patient first inhales almost pure chloroform-vapor, and hence the cardiac motor ganglia are quickly acted on, and in this way may be explained the sudden access of cardiac paralysis.

The second element which may serve to explain the unfortunate result in Dr. McGuire's case, is idiosyncrasy. There may have been some original susceptibility to the action of the anæsthetic. The absence of any cardiac and pulmonary lesion, proves that the fatal result must be attributed either to the sudden overwhelming of the heart by undi-

luted chloroform-vapor, or the existence of a peculiar susceptibility which renders any considerable quantity of the anæsthetic, itself, dangerous.

The final consideration is, what anæsthetic is least dangerous under ordinary circumstances? In the face of so many untoward results from chloroform, are we not bound by every consideration, professional or moral, to use ether, which is unquestionably a less dangerous if not as agreeable anæsthetic? This is the more true, since even in the hands of such able and judicious surgeons as Dr. McGuire and Dr. Kinloch, accidents will occur from the use of so unsafe an agent as chloroform.

As we close the remarks on Dr. McGuire's case, the *Nashville Journal of Medicine and Surgery*, for November, comes to us, having for its first article a case of "Fatal Chloroform Narcosis Administered in the Operation of Teeth Extraction." The anæsthetic was administered by Dr. J. F. Byrn, of Murfreesboro, Tenn., and the extraction of teeth was done by Dr. Hartman, the dentist. Mrs. Smith, the subject, was aged 30, and was the mother of five children. She had taken chloroform several times before, for the same purpose, without any unpleasant symptoms. Dr. Byrn and Dr. Hartman tried to dissuade her from her purpose, and represented the danger of the proceeding—the especial danger—since the extraction of teeth under chloroform had been the cause of death in numerous cases. She, however, persisted in her purpose, and took her place in "the operating chair"—a nearly upright position. Dr. Byrn placed a quantity, estimated at two drachms, "on a folded towel," and the inhalation proceeded, Mrs. Smith passing quickly into unconsciousness. Two teeth were extracted, and as the operator was about to seize the third it was observed that "her respiration was becoming embarrassed, and her eyes were open, fixed, and staring." The usual steps were taken to avert the fatal result, but without avail.

There are several very important considerations involved in this case, and as medical journalists it is our duty to utilize them to point an obvious moral. Before giving the anæsthetic the poor woman was warned of the danger, but was this sufficient? Recognizing as they did the enormous danger of the procedure, ought not the physicians to have declined to administer this anæsthetic? A resolute adherence to a right position would most probably have saved a human life.

The mode of administering the chloroform, on a folded towel, so held as not to permit free dilution with air, is that which we have shown to be especially dangerous, and in this case we have an additional illustration of the truth of this assertion. Mrs. Smith, although calling for more chloroform, passed promptly into the anæsthetic state, because she inhaled nearly pure chloroform vapor. She passed the danger point due to the first impression of the chloroform vapor on the cardiac ganglia. To what then must the death be attributed? It has been abundantly demonstrated, that operations in the domain of the fifth nerve, under chloroform narcosis, are peculiarly dangerous. The reason is obvious. The nucleus of the fifth and the nucleus of the pneumogastric lie in close juxtaposition, and intimate reflex relations, if not direct commissural connections, subsist between them. The impression made on the end organs of the fifth, in tooth extraction, exert a powerful stimulant effect on the inhibitive function of the pneumogastric. Such is the mechanism. It is readily illustrated on a rabbit. If placed in a Czermak's holder, and a needle having a paper flag attached to its outer extremity, is thrust through the walls of the chest into the muscular substance of the rabbit's heart, the movements of the paper flag will indicate the heart's movements. Chloroform vapor must be very cautiously administered, and when sensibility is induced, some irritation, as drawing a tooth, must be suddenly applied to the jaw; the heart is immediately stopped.

The danger of tooth-drawing under chloroform anæsthesia being so pronounced, and so readily explained, we hold that no physician is justified in encountering such risks. Any one happening to such a terrible accident, in the face of the abundant warnings, must ever afterward experience keen regrets.

"Those wounds heal ill that men do give themselves,"

says Shakespeare.

The usual means of restoration, we remarked above, were employed, but one of these expedients, we hold, is not justifiable. We refer to the hypodermatic injection of brandy. We observe in the accounts of such accidents an increasing use of the subcutaneous injection of some form of alcoholic stimulant. As chloroform and ether are derivatives of alcohol, and belong to the same group—the cerebral sedatives—it is certain that they closely correspond in their effects on the intra-cranial organs. To throw whiskey or brandy under the skin, in cases of anæsthetic depression due to chloroform or ether, is adding fuel to the flame. The best mode of treating the dangerous symptoms arising during anæsthesia is too important a topic to be considered here. We may at some future time set forth our views in a special article.

HEALING BY FAITH.

AN age of disbelief is diversified by a return to miracles. The evangelists, Barnes of Kentucky, and Simpson of New York, are now demonstrating that miraculous interposition, supposed to have

ceased with the era of primitive Christianity, has again returned to the earth. If only faith be sufficient, all maladies are cured by prayer and the anointing with oil, say these teachers. Their words are proved by their works. In the same way, many a decrepit and sick pilgrim, repairing to the sacred spring of Our Lady of Lourdes, is miraculously healed. Those scoffing unbelievers who laugh over these evidences of healing, have little conception of the remarkable results which may be achieved by an unquestioning faith. It is, however, a necessary preliminary, that those who seek to be cured shall have an absolute conviction that the means are adequate to the end. If this faith be wanting, the effort at cure, no matter how zealously made, will fail. When we come to examine the list of cases thus miraculously healed, we find that they consist, for the most part, of nervous and hysterical maladies. In the *New York Tribune*, of November 19, there is given a list of those cured by Mr. Simpson. They are examples of aphonia, of pains, of paralysis, of useless joints, etc., which all practical physicians know to be of neurotic or hysterical origin, and curable by a strong mental impression of some kind. How desirable soever it may be to have the power to produce miracles revived on the earth, it is quite clear that these evangelists have done no more than is daily accomplished by those peripatetic medical charlatans who cure by "laying on of hands." They have not accomplished more difficult feats than that Massachusetts doctor who cures by prayer without fees, but who has built up a great establishment as a testimony to his powers. To him not long since a lady with heart-disease (valvular) repaired, full of faith that his intercession in her behalf must succeed. On learning the nature of her case, he gravely shook his head, and said, "in his experience, the Lord rarely interfered in such cases."

Sir Humphry Davy, when a young man, had an experience which serves to illustrate the nature of healing by faith. Davy was employed by Dr. Beddoes, who had an extravagant theory of the curative power of oxygen, to administer the gas to certain patients. Amongst those who came to be treated was a paralytic. Before beginning the inhalation, Davy placed a thermometer under the patient's tongue, to record his temperature. The man was much impressed with this, and declared with great enthusiasm that he was already much relieved. Seeing the extraordinary influence of the man's imagination, Davy did nothing more than gravely place the thermometer under his tongue, from day to day, and in a short time he reported cured.

Those of our readers interested in this question—and what physician is not?—will find an excellent summary of our existing knowledge in Tuke's work on the *Influence of the Mind over the Body*. Here are recorded, amongst other curious examples of mental influence, the remarkable miracles performed during the first part of this century by the priest-Prince Hohenlohe, which equal the deeds done by our contemporaries, Barnes and Simpson. Doubtless, in all ages, especially in troubled states of society, and during times of pronounced unbelief, there have risen up teachers pervaded by such profound convictions as to impress all about them with a belief in their possessing supernatural powers in the cure of disease. In making these statements we wish merely to express our theory that these evangelists accomplish their results through agencies well known to the medical profession, and, in common with most believers, we hold that the age of genuine miracles has passed. Our comments on the work of contemporary evangelists are intended merely to impress our readers with the physiological aspect of these miraculous cures, and we are, therefore, not in sympathy with those who distrust the results achieved by the influence of faith and prayer. Indeed, from our point of view, we hold that Barnes and Simpson are, in a limited sense, engaged in a work of utility quite irrespective of theological considerations, since they are unquestionably curing a certain class of cases through a strong mental influence. At the same time, there is always danger in such cases that the enthusiasm aroused by supposed miracles will degenerate into delirium.

There is yet another medical question connected with these periodical outbreaks of religious fervor. We have read the history of moral epidemics to little purpose if we have not recognized the injury done to the nervous system of those subjected to the enormous strain of an all-pervading religious enthusiasm. The attacks of chorea, of epilepsy, of mania, which follow in the wake of extreme religious excitement are known to all practical physicians. It becomes the duty, therefore, of the medical profession to restrain, as far as may be in their power, the injurious influences of religious excitement, whilst refraining from interference in all healthy spiritual development.

AN IMPORTANT CHANGE IN THE STRENGTH OF OPIUM AND ITS PREPARATIONS IN THE NEW PHARMACOPŒIA.

IN the number of the *Ephemeris of Materia Medica* for November, Dr. Squibb calls attention to the change in the strength of medicinal opium and its preparations effected by the Pharmacopœia of 1880. The notice is timely, for no other drug, perhaps, is so constantly used, and no other one certainly vies with it in importance as to definite, constant, and known strength. To state it briefly, *the strength of all these preparations is increased about 50 per cent.*

The Convention directed that "in liquid opium preparations, excepting paregoric, the strength of 10 per cent. shall be adopted if deemed advisable." This has been done, and on page 454, in a "Table exhibiting differences of strength," the consequent increase of 10 per cent. is stated. But so misleading is this statement that as accomplished a pharmaceutist as Dr. Squibb himself, while revising the proof-sheets of the Pharmacopœia, overlooked the fact that the *strength* of opium itself, as well as the *percentage* contained in its preparations, has been increased and thus adds about 40 per cent. more to the strength of the opium preparations. As Dr. Squibb shows, the change is a judicious one, and in the direction of accuracy, but we are surprised that prominent notice of the fact has not been given in the Pharmacopœia.

Surely not only this should have been done, but a much greater uniformity in the preparations of opium should have been insisted on. The Pharmacopœia prescribes that in making them an opium assaying "not less than 12 nor more than 16 per cent." shall be used—a difference of 33 per cent! This will give with a 12 per cent. powder 5.44 grains of morphia to the fluidounce, and with a 16 per cent. powder 7.25 grains. Why should not other chemists be able to fix a *definite* standard, as Dr. Squibb has done, and make the liquid preparations of opium contain 6 grains of morphia, the alkaloid (that is, 7.5 grains of sulphate of morphia), to the fluidounce? Or, rather, why should not the Pharmacopœia itself do this?

Dr. Squibb suggests, and it should certainly be followed, that hereafter, in prescribing these liquid preparations, the figures "1870" or "1880" be added to show which preparation is desired. It is of the utmost importance that both the profession and the public understand the change. If not, we must face the possibility of accident through entire ignorance, but for which the courts will properly hold us responsible. We hope the lay press also will assist in diffusing a knowledge of the change.

THE JOHNS HOPKINS UNIVERSITY.

OUR Baltimore correspondent calls attention in another column to the completion of the new biological laboratory, and to a most important question in connection with this splendid University endowment. Shall the Medical School enter the lists to compete with the unendowed schools all over the land in turning out doctors of ordinary education, or shall it devote itself, as it alone has the means of doing, to the higher medical teaching only, and give us thoroughly educated scientific men, students who are competent to engage in original research, and men fitted to fill professorial chairs?

Were the answer of local consequence alone we should not allude to it, but this is a University which is peculiarly of national importance, and is fortunately hampered neither by statute nor tradition. We have already ten medical schools where one would do, as we showed some weeks ago. Another of the same class would not only be a superfluity—it would be a calamity.

Great Britian has just started an "Association for the Advancement of Medicine by Research." Johns Hopkins University can perform precisely the functions of such an association in this country, and a great deal more. Its endowment, its hospital, its laboratories, its equipment, above all its able and distinguished President and Faculty give assurance of what its students ought to be, and what we hope they will be—competent, thorough, laborious, and distinguished.

Those who are charged with the execution of this munificent trust now have it within their power to create a school in which can be had such an education as is now unattainable on this continent, and from the lack of sufficient endowment is beyond the scope of any of our existing medical schools. We trust that this grand opportunity, which appears to have been part of the design of the founder, will be embraced by his trustees. The John Hopkins University will then supplement the existing medical schools and will have the whole country for its field of benefaction.

DR. AUSTIN FLINT, of New York, delivered in this city last Saturday evening, the first of his course of three lectures before the Philadelphia County Medical Society, on the physical exploration of the lungs by auscultation and percussion, before a medical audience such as has not been seen in this city for many years. Although the subject was one about which there was not an atmosphere of novelty, yet it was so freshly and suggestively treated by the distinguished clinician, that all felt that the evening had been of profit as well as pleasure.

The lectures will appear in these columns at an early day.

GOVERNOR-ELECT PATTISON will have one officer to appoint in whom the medical profession of this city have a deep interest—the Health Officer of Philadelphia, and we hope that Mr. Pattison will rise above party traditions and follow the indications of a true civil service reform.

Mr. John E. Addicks, the present incumbent, has been Health Officer for a number of years, and has the familiarity with his duties which only long experience can give. He is an efficient officer, courteous, and yet bold and prompt. Not a word of suspicion have we ever heard against his entire integrity. Although he is a Republican, we hope

that Mr. Pattison's civil service reform views will prompt him to retain such a capable officer. By so doing he will gratify many Republicans who voted for him, and all of both parties who are sincere reformers.

We notice with satisfaction that the Court of Special Sessions in New York has fined a number of dealers in sums of from fifteen to one hundred dollars for adulterating the milk they were selling.

Milk is so important an article of food, not only because it enters so largely into the food of adults, and especially of infants, but because disease, as is now well known, is so readily and so certainly carried by milk, that its purity should be most carefully looked to. It is more than a mere question of money, it is often one of life and death. Would that other cities had as stringent laws and as efficient sanitary inspectors as New York.

REVIEWS.

CLINICAL SURGERY. EXTRACTS FROM THE REPORTS OF SURGICAL PRACTICE BETWEEN THE YEARS 1860–1876. By DR. M. BILLROTH, Professor of Surgery in Vienna. Translated and edited with annotations by C. T. Dent, F.R.C.S., etc. With plates. 8vo. pp. xx. 518. London: The New Sydenham Society, 1881.

THIS volume is not to be mistaken for a systematic treatise on surgery; it is a collation of reports of clinical experiences of Dr. Billroth, during a period of sixteen years. But it is not a mere collation of these reports. They have been edited and rearranged so as to group cases of a like kind, and notes have been added by the translator, so that the reader is presented with not only what Billroth thought and did in years gone by, but also his belief and practice at the present day.

The translator has thus enhanced the value of these reports above that which they possessed in the original. He has also judiciously suppressed the mass of statistics with which the latter were burdened, citing Billroth's own remark: "Statistics, like women, are a mirror of purest virtue and truth, or public prostitutes to be put to any use one may wish." He has also added a useful index and reproduced ten extremely interesting and well-executed full-page plates, illustrating the context.

It would be impossible, within the limits we can spare, to give any idea of the wealth of experience this book lays before the reader. It is only possible to commend it as a mine from which the practical surgeon can dig out something of value upon almost any conceivable subject in surgery.

FISTULA, HEMORRHOIDS, PAINFUL ULCER, STRICTURE, PROLAPSUS, AND OTHER DISEASES OF THE RECTUM: THEIR DIAGNOSIS AND TREATMENT. By WILLIAM ALLINGHAM, M.D., F.R.C.S., etc. Fourth revised and enlarged edition. With illustrations. Large 8vo. pp. viii. 167. Philadelphia: P. Blakiston, Son & Co., 1882.

AFTER one has gazed at each member of the long title of this well-known work, is it a relief or a disappointment to discover that the "other" diseases of the rectum hinted at are but impaction of feces, cancer, and neuralgia? Let each reader decide for himself; we at least find it a relief. For, setting aside for the moment the value of the author's opinions, and regarding only his literary style, we are thankful that his ambition rose no higher, nor diffused itself over any more widespread field. And, if we fix our mind rather, as we ought, upon the value alluded to of the author's opinions, we can still feel no regret that it is possible to get at them all without stumbling over any more rough and stony literary obstacles than are here scattered about.

The author needs no commendation, nor need he fear any fair criticism of his matter, for he speaks from a long and well-digested experience. He is a recognized authority in regard to the subject of this book. So we do not address ourselves to this feature of it, but we do criticise its style, not in any captious spirit, but because we think too little attention is paid, now-a-days, to this part of authorship among medical writers. It is not enough that an author shall serve his readers with good fare, he must e'en serve it handsomely, or he shall not escape our complaint.

SOCIETY PROCEEDINGS.

SUMTER COUNTY (ALA.) MEDICAL SOCIETY.

Stated Meeting, October, 1882.

J. N. GILMORE, M.D., PRESIDENT, IN THE CHAIR.

(*Specially reported for* THE MEDICAL NEWS.)

DR. E. H. SHOLL, of Gainesville (appointed at a previous meeting for this purpose), introduced as a subject for consideration,

CINCHONIDIA.

After a very large practical experience in the use o cinchonidia, he was prepared to say that it fully met his expectations as to its *antiperiodic* and *antipyretic* effects; that he relied on it in the gravest cases with as much dependence as on quinia, and in the same doses. He detailed his experience with it in a very severe case of double pneumonia in a negro man, where its prompt and decided antipyretic effect, in doses of twenty-five grains each morning, was marked, and contributed to the favorable termination; reducing the temperature in three days from 105° to 99°. From its effects in this case he was led to believe it possessed also, in a high degree, the antipyretic property of quinia.

He had also used it hypodermically, in solution by boiling water, and by means of tartaric acid, as recommended by Dr. Sawyer, of Whistler; but with every care in making the solution and in its administration, he had, while readily getting its constitutional effect, produced sloughing in every case.

Quite a number of the members present had used cinchonidia successfully in their practice, though they had not relied upon it to the extent of Dr. Sholl; using it in the milder attacks, and where it was desirable to consult economy.

DR. WEBB had used it frequently in the usual forms of malarial fever, but had never used it hypodermically. For a number of years he had used in this way either the bromide or sulphate of quinia, without having produced ulceration. His method of preparing the sulphate for hypodermic use, was that recommended by Dr. George Kumpè, of North Alabama. He dissolved sixty grains of sulphate of quinia in one ounce of distilled water by slowly adding dilute sulphuric acid until the solution was clear. To remove any excess of acid he then added five or ten grains more of quinia. This was then passed through a

double filter, which removed all the undissolved crystals of quinia, and gave a clear, *neutral* solution. He had frequently used the sulphate prepared in this way without any unpleasant local effects.

THE PREVAILING CONTINUED FEVER.

DR. SHOLL then gave his views of the nature and treatment of the *continued form of fever*, which has prevailed for the past two or three years in Sumter and other parts of the State. He regarded it as typhoid fever proper; the enteric fever of Dr. Wood and other writers. He had in a number of cases used very successfully, the treatment recommended by him in a paper read before the Medical Association of the State of Alabama, at its meeting in Mobile in April, 1882, entitled "A Proposed Method of Abbreviating the Duration of Curable Cases of Typhoid Fever." His plan was, when meeting a case of suspected or recognized typhoid fever, to give (more properly and hopefully during the first ten days) at once to an adult, forty drops of laudanum per orem, or its equivalent of morphia hypodermically, and follow in one hour with forty grains of ipecac. This dose was administered twice in twenty-four hours, diminishing the dose daily, when the symptoms were more favorable, or discontinuing it, if it failed to produce the desired effect. So far its results have been very happy when tested with parallel cases in the same house under different treatment. The unpleasant symptoms being greatly ameliorated from the beginning of this treatment, and the *duration* of the attack having been brought down in cases which seemed threatening, to seven or ten days; and not prejudicing the results where other treatment was afterwards required.

In those cases in which this plan of treatment did not prove speedily successful, in which the fever continued into the third or fourth week, assuming a more adynamic type, he had used, with good results, the iodide of potassium. He gave it in conjunction with the syrup of lacto-phosphate of lime, four grains of the former to a tablespoonful of the latter, every three or four hours, to which, on the suggestion of Dr. Moody, of Pickens, he had latterly added two drops of carbolic acid, as an antiseptic.

As to the nature of typhoid fever, he was not satisfied to accept the theory of a specific germ, or bacteria, as the sole cause. He had been unable to trace the present epidemic to any foreign source. Impure drinking water, in one instance the constant effluvia of rotting cabbages, the washing of the soiled bedding in another, and the inhalation of the odor of excrement, were deemed sufficient cause for the origin of this disease as seen by him, which, through its soiled linen and foul excreta, transmitted to others what was essentially and only a pure typhoid fever, and whose further ravages in two families was stayed by change of drinking water.

DR. R. D. WEBB, of Livingston, was not prepared to fully admit that the continued fever prevalent in this county, designated variously as continued malarial fever, typho-malarial fever, and typhoid fever, was typhoid fever (enteric fever of Dr. Wood). The variety of names by which it is designated shows the unsettled state of medical opinion as to its real character. Its prevalence in Sumter and other parts of Alabama gives it, to us, a local interest, independent of the etiological and pathological features which it involves. His observations upon the fevers of this county, extending over a period of thirty years, had left doubts upon his mind as to its character.

The changes in type which fevers have undergone in this county from its settlement in 1832–33 to the present time, are well known to all who have practised here for any considerable time. The severity of the cold stage, shortness and high grade of the fever, and subsidence with profuse perspiration and long intermissions or decided remissions, were characteristic of the fever of that day. These symptoms have gradually changed, until now the cold stage is hardly perceptible, the fever protracted and of low grade, the remission very short, and the profuse perspiration has dwindled to a mere moisture of the surface. From this to *continued malarial fever*, with its morning remissions, was but another step in these changes. He here gave a clinical analysis of several cases, with bedside notes, and charts of temperature and pulse, of several cases of what he regarded as continued malarial fever, and called attention to the difference of the phenomena in these and in a true typhoid fever.

In the prevalent fever we have a moist, broad tongue, coated with a white fur, rarely becoming, even in the severe cases, red, pointed, dark or dry; severe bilious vomiting in the outset of the attack; constipation, as contrasted with diarrhœa; flat abomen, and absence of tympanites, and tenderness over iliac region; absence of the rose-colored spots; too great a range in temperature curve, and decided indications of hebdomadal periods which corresponded with the well-known habit of recurrence of malarial fever at the end of the seventh day and its multiples.

Post-mortems in several cases revealed only an hyperæmic condition of the mucous membrane of the intestines, particularly of the ileum, with enlargement of the solitary glands or prominences of the follicles of Lieberkuhn.

In one case he had found ulceration of Peyer's patches, but from the circumstances of the origin of this case, being one of ten others in a local epidemic, evidently due to the unsanitary condition of an adjoining badly drained lot and filthy slaughter-house, he was disposed to regard this also as malarial fever. Pathological observations show that Peyer's glands are often ulcerated in other diseases than malarial fevers. They are from their structure—"solid aggregated masses of nuclear particles"—very liable to enlargement and ulceration, and we may reasonably expect them to be found ulcerated in any disease in which we have a hyperæmic condition of the mucous membrane of the intestines. Hence the ulceration of Peyer's patches is not to be regarded as pathognomonic of typhoid fever.

The question of the etiology of typhoid fever is also involved here. Does it originate, as implied in the remarks of Dr. Sholl, from unsanitary surroundings, *de novo*, or must we have the pre-existing ovum—the *contagium vivum*—introduced from a previously existing case which finds its congenial nidus for propagation in these unsanitary surroundings?

The question is one of vital importance. His observations and studies had led him to favor the view of a previous ovum. The epidemic of typhoid fever which prevailed in this county from 1845 to 1855, which exhibited in a marked degree the characteristic phenomena of typhoid fever, was well known to be due to importation from Virginia, by a company of negroes brought here for sale. So far as he had been able to determine, no such foreign origin could be found for the present fever. Upon the other hand, it occurred sporadically in isolated cases in every part of the county and State, wherever malarial fever prevailed, and did not exhibit any evidences of a contagious nature.

Nor was he disposed to regard the fever as seen here as a hybrid of typhoid and malarial fevers. The possibility of such a hybrid he did not deny; but did not see the evidence of it here. It is, as already pointed out, deficient in the characteristic phenomena of typhoid fever, and if a hybrid, these should be fully manifested, at least in the latter stages.

It presents, so far as his observation goes, nothing of the specific and contagious nature of typhoid fever, but upon the other hand, occurs in isolated cases where none but a miasmatic origin can be traced, which points to its being *endemic* and malarial. The symptoms, or peculiar type too, are satisfactorily explained upon the hypothesis of the changed type of malarial fevers, and hence he did not see the necessity of calling in a new name or fever.

His treatment had been based upon his views of the nature of the fever. At the outset a mild purgative of calomel, and later in the disease enemeta, or laxatives when the bowels need moving. Quinia in the first week, to interrupt as far as possible the paroxysmal character of the fever, and later in the attack, at the hebdomadal periods, for its anti-paroxysmal and anti-pyretic effects. He did not, however, give it in the large doses of some, for its decided anti-pyretic effect, believing that the nervous system was in too irritable a condition to bear these depressing doses. He rarely gave more than thirty grains in twenty-four hours, and preferred giving this in divided doses, of five grains each. He relied mainly upon sponging the surface with cold water to reduce the temperature. He also in the second week, gave salicylate of sodium, tincture of iodine, and carbolic acid. If the tongue was disposed to be dry, and there was tympanites, he used internally spirits of turpentine, and also used it externally over the abdomen, by embrocation or as a stupe. In cases where the pulse was rapid and firm, he used tincture of veratrum viride.

DR. GILMORE, of Gaston, had abandoned the idea of a hybrid, or typho-malarial fever, and was disposed to regard the prevalent fever of our county as continued malarial fever.

DR. J. M. GODFREY, of Sumterville, did not think he had met with typhoid fever since 1860, and was also disposed to regard the prevalent fever as a *malarial fever*.

DR. SHOLL then alluded to the

TREATMENT OF DIPHTHERIA.

He urged a careful test of the following method, which he had now used in fifty cases, with a mortality of three, and believed it to come as nearly as any thing could be to meeting the urgent requirements of these cases.

To an adult he administers twenty drops of liquor potassæ every three hours in half a glass of water. Half-way between each dose he gives one to two tablespoonsful of syrup of lacto-phosphate of lime. Proportionate doses are given to children. He uses no local application to the throat internally. Externally he uses bacon rind freely and often applied to the swollen throat, and if the temperature is high, to the whole body. He desired the members to give this treatment a careful practical test.

DR. R. D. WEBB believed there were good grounds for regarding diphtheria as having local origin from a specific bacteria, which specially found its nidus in the membranes of the throat. The disease was thus first local, and afterwards became constitutional.

Hence in treatment he used locally, in the early stages, the following:

℞. Tinct. of iodine, ... ʒij.
Carbolic acid, ... ʒij.
Glycerine, ... ʒiv.—M.
S. Apply to the tonsils and fauces once or twice a day.

He also used, locally, in the form of spray or steam, a 2 to 5 per cent. solution of carbolic or salicylic acid. Internally he used liquor potassæ, as recommended by Dr. Sholl, with the addition of tinct. mur. ferri, and chlorate of potash.

Under the call for "Report of Cases," DR. J. M. HENSON, of Brewersville, reported a case of

PURPURA HEMORRHAGICA,

in a young lady of twenty years, who did not seem to be suffering very much constitutionally. It had continued three weeks, when an acute exacerbation of fever supervened, with jaundiced (orange-yellow) skin, and copious hematuria. The patient died in twenty-four hours after this exacerbation of fever. Query. Was this an attack of hemorrhagic malarial fever, supervening upon the purpura hemorrhagica, or only a hemorrhage from the kidneys, and into the rete mucosum, from the hemorrhagic tendency of the patient, during the occasion of an ordinary remittent fever?

DR. SHOLL was disposed to regard the diagnosis as doubtful, but probably a combination of purpura with hemorrhagic malarial fever, a few cases of which have been seen in the County this fall.

DR. WEBB reported a

COMPOUND FRACTURE OF THE RADIUS AND ULNA.

treated by antiseptic *closed dressings*, which he saw in July last in consultation with Dr. J. F. Moore. The external wound healed kindly with but little suppuration, and the bones united in the usual time. He was disposed to give the method further trial, as he did not see why we may not in this way secure primary union of the soft parts, and make the cure more speedy, and with less pain to the patient, and less trouble to the surgeon, than by the more usual method of open dressing. He referred in this connection to two cases of compound fracture of the tibia, treated in a similar way, and also to Prof. E. von Bergmann's method of treating compound fractures of the *penetrating variety* by primary antiseptic occlusion. He did not see why we may not apply the same principle to fractures with a greater degree of laceration of the soft parts, especially in the pure air of the country. He believed, even in cases of severe laceration, the wound might be kept to a great degree aseptic, and treated with better success by this method than the open plan.

DR. SHOLL suggested the plastic splints of Koehler, which by warming may be readily moulded to fit any part of the body, instead of the plastic bandage, for these cases. They are convenient and could be readily removed and reapplied, when necessary to renew the dressing.

The lateness of the hour prevented further discussion of medical topics.

The following officers were elected for the ensuing year:

President.—R. H. ARRINGTON, M.D.
Vice-President.—J. B. HAWLEY, M.D.
Secretary and Treasurer.—R. D. WEBB, M.D.

MEDICAL ASSOCIATION OF CENTRAL NEW YORK.

Fifteenth Semi-annual Meeting, held at Rochester, November 21, 1882.

The Fifteenth Semi-annual Meeting of the Medical Association of Central New York, was held at Rochester, on Tuesday the 21st of November, the President, Dr. THEODORE DIMON, of Auburn, in the chair.

After the reading of the minutes of the last meeting, by the Secretary, Dr. J. N. Arnold, of Clyde, the following committees were appointed by the Chair:

On Credentials.—Drs. Bennett, of Livingston; Colvin, of Wayne; and Rider, of Monroe.

Business.—Drs. Kendall, of Onondaga; Jewett, of Ontario; and Hovey, of Monroe.

Reception.—Drs. Dann, of Monroe; Van de Warker, of Onondaga; and Cotes, of Genesee.

Ethics.—Drs. Ames, of Livingston; Slocum, of Onondaga; and Pomeroy, of Cayuga.

Publication.—Drs. Arnold, (ex-officio); Hamlin, of Cayuga; and Roe, of Monroe.

DR. JASON PARKER, of Clyde, then reported a case of

EXTRA-UTERINE CONCEPTION FOLLOWED BY PERITONITIS.

He first saw the case on September 24th, and the next day Dr. Smith, of Clyde, was called in consultation. The diagnosis was peritonitis complicated with cellulitis. The bowels were constipated and there was much tympanites. An enema was given on the 29th. October 1st, there was a severe diarrhœa. The case was one of unusually severe peritonitis, and was treated mainly by large doses of morphia hypodermically; ¼ grain was given every two hours. On one occasion two grains were given in an hour and a half. At another time during the treatment eight grains were given in twenty-four hours.

From October 4th to 16th the patient was doing well, and about the latter date the tympanites had nearly disappeared and the morphia was discontinued. The menses appeared October 8th. There was from the first a hard, circumscribed mass felt in the left inguinal region. The patient died very suddenly on October 17th.

An *autopsy* was made twenty-four hours after death. The abdomen only was opened. There was an unusual amount of adipose tissue. The omentum was greatly discolored and firmly adherent to the peritoneum and the intestines; the latter showed the effects of beginning mortification. The cavity was filled with clotted blood and serum. In the anterior wall of the uterus there was a fibroid tumor about the size of an orange. The right ovary and tube, etc., were normal; at the left of the uterus was a tumor which appeared to take the place of the left Fallopian tube and ovary. On attempting to enucleate the tumor it was ruptured and disclosed a fœtus of about three months.

DR. JOHN GERIN, of Auburn, presented a paper on *Abnormality of the Stomach.*

DR. CHEESEMAN exhibited a brain tumor and narrated the history of the case.

DR. F. M. HAMLIN, of Auburn, read an elaborate essay on

OPIUM SMOKING.

He described the method of preparing the watery extract, and how it was sold. He referred to the absurd popular ideas of the mode of smoking, and described the usual manner and the pipe. He considered the habit one of the most pernicious of vices, for it was not resorted to for the purpose of allaying pain, but simply for sensual pleasure. It stimulates the sexual appetite, and the habitues endeavor to draw all others into the habit. Especially is it used for the purpose of seducing young girls; and as all moral sense is perverted the most atrocious crimes are concocted while indulging in the vice of opium smoking.

He gave statistics showing the number using the pipe, and the amount of opium smoked.

DR. W. J. HERRIMAN, of Rochester, read a paper *On the Care of the Insane.*

DR. L. A. WEIGEL, of Rochester, reported a case of *Chorea Complicating Pregnancy.*

DR. J. E. CARR, of Jordan, made some remarks on

THE TREATMENT OF FRACTURES OF THE LONG BONES,

and exhibited apparatus. He claimed that by subjecting the limb to a continual extension and counter-extension for four days, the muscles would be so stretched that the fractured ends of the bone would slip into their normal position, and the limb could then be dressed in the ordinary manner, and a perfect union obtained.

DR. TOWNSEND claimed that by the aid of chloroform he could in one minute reduce a fracture as well as Dr. Carr could by his method in four days.

DR. HENRY claimed that the muscles could not be stretched, and Dr. Carr maintained that they could be, by gradual extension.

DR. E. M. MOORE stated that some years ago one of his students experimented on this subject of stretching the muscles, extensively. He procured a number of sheep, and before killing them, the tendons were carefully dissected from the region of the foot, and the muscles subjected to powerful tension. It was found that these small muscles would sustain a weight of 300 pounds before tearing, and even then the scapula would sometimes break first. Subjected to such a force these muscles would stretch about three-fourths of an inch. Dr. Moore did not believe that any ordinary force could stretch an adult human muscle.

DR. CREVELING, of Auburn, exhibited drawings of some cases of *Laryngeal Disease.*

DR. H. D. DIDAMA, of Syracuse, read a paper on *The New Factor in Tuberculosis.*

DR. JAMES CHAPMAN, of Medina, read a paper on *Supra-Condyloid Amputation at the Elbow-joint.*

The consideration of the new Code of Ethics was then introduced by Dr. W. S. Ely, of Rochester, who advocated the entire abolition of all codes. The hour being late, and many members of the Society who desired to participate in the discussion being obliged to take the afternoon train, the further consideration of the subject was indefinitely postponed.

DR. CREVELING exhibited a case of

COMPOUND FRACTURE OF THE FEMUR,

where he had sawed off about an inch of the bone above the knee. There was good union, and apparently no shortening. Dr. Moore was sceptical, and measured the limb in presence of the Association, and pronounced the shortening about an inch.

DR. J. O. ROE had a carefully prepared paper on *Hay Fever; its Etiology, Pathology, and Treatment.* but owing to the lateness of the hour he only gave a short synopsis of it.

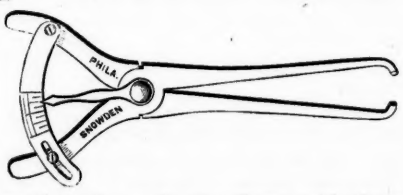
The Association then adjourned, to meet at Syracuse, on the third Tuesday in May, 1883.

NEW INVENTIONS.

THE SEPTOMETER.

BY CARL SEILER, M.D.,
OF PHILADELPHIA.

THE accompanying cut represents an instrument which I have lately devised for measuring the thickness of the nasal septum, and by means of which a differential diagnosis between localized thickening, as exostosis and deviation of the septum, can be made more readily and accurately than by inspection of the nasal cavities alone.



It consists of a pair of calipers, with the points rounded off and turned inward, the blades of which extend beyond the joint and carry a divided arc. Over

the pivot of the joint of the upper blade is fastened a hand, which when the instrument is closed points to the O mark on the arc, and moves toward the right as the points are separated. The joint is moved so easily that the slightest pressure upon the points of the blades separates them, while they are held together by a delicate concealed spring, so that when the portion of the septum grasped between the points presents any variations in thickness, as the instrument is passed up or down, the index hand travels to the right or to the left over the arc, thus indicating the position of the variations. The septometer is held by a wooden handle, screwed at an angle into the lower blade, so that the hand is below the patient's nose, and does not obstruct the view of the points, and also in order to prevent any embarrassment of the delicate motion of the blades by grasping them too tightly.

As a matter of course this intrument can be used for a variety of purposes, where it is desirable, to measure the thickness of tissue.

The septometer is made by Mr. Wm. Snowden, surgical instrument maker, of this city.

NEWS ITEMS.

BALTIMORE.

(From Our Special Correspondent.)

THE JOHNS HOPKINS MEDICAL SCHOOL.—The Trustees of the Johns Hopkins Hospital have, it is understood, recently determined definitely to open the hospital in 1885. There comes to the front, therefore, for the University trustees (a distinct corporation), the question of organizing a medical school which shall coöperate with the physicians and surgeons of the hospital in promoting the advancement of medical science. Such coöperation for such purpose was the express desire of the founder of both Hospital and University. It is hoped, therefore, that the medical school will not enter upon competition with other schools as to number of students, but will put its main strength to the work of giving advanced instruction to men from other schools who already possess the degree of M.D.; and that not being dependent upon students for its support, it will refuse to accept undergraduate students who cannot pass an entrance examination which shall be calculated to decide, at least, whether they have such a general education as may be expected in a professional man, and a fair knowledge of physics, chemistry, physiology, and mammalian anatomy. Such men would be ready to enter at once upon the professional study of medicine in a manner which the average medical student is not. In addition, it is hoped that the Johns Hopkins Medical School will build and support special laboratories for advanced study and research in pathology, pathological anatomy, experimental therapeutics, hygiene, etc.; and so contribute to the advance of medical science in the United States; this was certainly what Johns Hopkins wanted it to do.

THE NEW BIOLOGICAL LABORATORY OF THE JOHNS HOPKINS UNIVERSITY now has its walls completed, and will very shortly have its roof on. Internal fitting up will, however, occupy a considerable time, so that the biologists hardly expect to move into it for some months to come.

The building is of Baltimore pressed brick, with trimmings of bluestone, and is remarkable for the number of its windows. The architect grumbled somewhat at these, as impairing the beauty of his original design; but Prof. Martin insisted that a laboratory should be built like a factory, with just enough wall between the windows to carry roof and floor steadily, and the trustees supported him. The aspect of the building, so far as can be judged at present, shows that the architect's fears were groundless; it has not only that special beauty due to fitness for its purpose, but is (apart from all consideration as to its use) an ornament to the city.

The laboratory is 80 by 54 feet, and consists of a basement and three stories. Its ends face north and south, and the main entrance is placed on one side so as to avoid using up, in doors and windows, space on the north end where the best light for microscopic work was to be obtained: entry from the south was not practicable. The basement is well lighted, so that the rooms in it are available for work-rooms; and, as the building will be heated by hot air supplied from the neighboring chemical laboratory, but little of the basement space is taken up by heating apparatus.

The building is designed to provide for undergraduate students desiring to obtain a thorough practical knowledge of the elements of botany, comparative anatomy, physiology, and histology. Also to afford accomodation for a smaller number of advanced workers in botany, and (in connection with the marine laboratory of the University) for advanced students in comparative anatomy and embryology; but, in view of the fact that the University will soon have a medical school connected with it, very special opportunities have been provided for advanced study and research in animal physiology and histology.

Without going into details, the general arrangement of the building may be briefly described as follows: In the basement is an engine-room, containing also a cremation furnace for organic débris. The engine will work an elevator running from basement to top-story, and will probably be also employed in connection with a dynamo, to supply energy for running the various recording instruments, and for providing electric light in the photographic and histological rooms. The basement will also contain a room fitted up for work in chemical physiology, one for gross dissections and for post-mortems on the animals used in researches; a storeroom for chemicals, glassware, etc.; a battery-room, from which wires can be carried all over the building through special passages leading to each floor, and wide enough to allow a workman to climb through them. In the battery-room will be placed a clock making electric interruptions once a second, and wires will be carried for chronographic purposes from it to any desired part of the building.

The first floor is mainly occupied by a general laboratory for undergraduate work. It also has a lecture-room which will seat about sixty students; a storeroom for diagrams, lecture apparatus, and specimens; an assistant's private room; and a workshop to be fitted up with lathe and carpenter's bench, a glass-blower's table, etc.; in this latter room the laboratory mechanic will have his headquarters.

The second floor will contain a biological library provided with standard works, and the current journals, and proceedings of learned societies from all parts of the world. This room will also be used for drawing figures of specimens and apparatus, and will contain tables specially fitted up for that purpose. On the second floor are also located a small lecture-room, an assistant's room, a laboratory for advanced workers in botany; a similar room for post-graduate work in comparative anatomy; a small museum containing selected animal and vegetable types; and a room for photographing with southern exposure and arrangements for using the heliostat in micro-photography.

The third floor is to be devoted mainly to advanced study and research in animal physiology and histology. In addition to separate laboratories for experiments on warm- and cold-blooded animals, it will contain the professor's private room; a room for myographic experi-

ments and for work on animal electricity; a balance room; and a museum of physiological instruments and chemical preparations.

On the roof will be a small observatory exposed to direct sunlight, and available for printing off photographs, and for experiments as to the influence of solar radiation upon the physiological processes of plants and animals.

It is not proposed to have a room for gas analysis, or a combustion-room in the biological laboratory, as the recent additions to the chemical laboratory close by provide sufficient accommodation of this kind for the biologists.

The new building is calculated to provide ample accommodation for about fifty undergraduate workers, ten advanced students in botany and comparative anatomy, and about twenty advanced workers in animal physiology and histology.

NEW ORLEANS.

(From our Special Correspondent.)

HEALTH OF NEW ORLEANS.—This city has enjoyed a rather remarkable exemption from sickness during the past season. The overflow of the Mississippi in the spring has been followed by intensified malarial diseases in many parts of the valley, and by dysentery in some parts of the overflowed districts. It is true, however, that some portions of the inundated regions have been exempt from all forms of disease not usual to them. The proper explanation of this apparent difference in effect is due to the accidental circumstances affecting the various localities. First, wherever the currents produced by the escaping waters swept the surface, no sickness was likely to ensue. Second, wherever very deep deposits were formed, the circumstances were not favorable to the evolution of malaria. But, third, wherever slight deposits occurred from the stagnant water, violent malarial diseases have prevailed.

New Orleans has not been afflicted with malarial diseases to as great an extent as usual. The same statement is true with regard to yellow fever. Some four or five cases of this disease have occurred during the summer, but no epidemic has resulted. As yet, there is too little known about the essential nature of the yellow fever poison to justify any declaration in regard to the failure of the disease to spread, after having been introduced into this city. It is true, that the locality in which the first cases appeared was inhabited by persons for the most part acclimated by having had previous attacks of the disease. But it can be safely asserted that there is no part of the city, which cannot furnish enough material to set an epidemic going, provided precautions be not taken to prevent its spread. The efforts of the State Board of Health to stamp out the disease, and, probably more than all, the efficient cooperation of the auxiliary Sanitary Association may have had something to do in arresting the spread of the disease. People are apt to talk a good deal about a yellow fever condition of the season, or atmosphere, or some other surrounding, which they are not able to define. There is nothing known peculiar to this season in New Orleans, and certainly nothing which should differentiate it from the conditions in Pensacola in any particular manner.

PILOCARPINE IN THE TREATMENT OF HYDROPHOBIA.—A case of hydrophobia has just terminated fatally in this city, and the treatment presents something of interest. A man, aged about 40 years, had been bitten nearly six months before the attack. His physicians began the treatment with the exhibition of pilocarpine subcutaneously administered. The doses were only one-tenth of a grain each, and repeated from two to four hours. Most profuse salivation resulted, associated with drenching diaphoresis and notable diuresis. The patient's symptoms were not in the least mitigated; on the contrary his medical attendants assert that his thirst was so greatly aggravated that they deplored the use of this drug, since it seemed barbarous to excite thirst in a man who is utterly unable to relieve the sensation. They are all unanimous in declining to countenance further experiments with this proposed remedy for hydrophobia.

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISIANA has opened its session with promise of a good class.

BROOKLYN.

(From our Special Correspondent.)

ST. PETER'S HOSPITAL.—Dr. P. L. Schenck has been elected attending surgeon at St. Peter's Hospital, in the place of the late Dr. Lowell. Dr. Schenck was formerly for many years the Superintending Surgeon to the King's County Hospital, a patient of which latter institution undertook to assassinate him by shooting, some months since, to avenge some fancied wrongs. Happily the attempted murder failed, and Dr. Schenck has so far recovered from his wound as to be able to accept this new position.

THE COUNTY ASYLUM FOR THE INSANE.—Dr. J. C. Shaw, Superintendent of the County Asylum for the Insane, has recently made an annual report, showing that the demands upon that institution are constantly increasing. Dr. Shaw is an earnest advocate of non-restraint. There were 1221 patients treated in the year.

KING'S COUNTY HOSPITAL.—Dr. J. A. Arnold has also made a report for the King's County Hospital. He points out the urgent need still existing for a contagious disease hospital on a basis different from that now operating. At the present time all who require hospital accomodations when suffering from contagious affections are on the footing of paupers. There should be some provision made for those who are well-to-do and willing to pay for good diet and attendance, in some building apart from the County Hospital. The Commissioners of Charities are about to introduce gradually the employment of trained nurses; they have appointed fifteen such nurses at a salary of $14 per month. This is unmistakably a move in the right direction.

BOSTON.

(From our Special Correspondent.)

DR. CARPENTER ON HUMAN AUTOMATISM.—Dr. Wm. B. Carpenter, the distinguished English physiologist, is now delivering a course of lectures on human automatism before the Lowell Institute. The first lecture was delivered on Monday evening, November 13, and outlined the theory which will be proved on subsequent evenings. After alluding to the limits of possible knowledge of the nature of man, the lecturer defined an automaton as a machine which has in itself a power of motion under conditions fixed for it, but not by it. In this sense man is an automaton. Advocates of the doctrine of pure automatism assert that the actions of men are solely the result of outward impressions on the nervous system, and that consciousness and will have no more to do with them than the whistle of a locomotive has to do with the progress of the machine. The automatic bellows-blower is an illustration of a pure automaton. The school just named holds that man is just such an automaton, and that a man possessing neither consciousness nor will-

power would, given the same conditions of heredity and environment, act precisely as men now do. The vital defect of this doctrine is that it contradicts the testimony of consciousness, which is the very witness which gives us the facts by which its own evidence is impeached. We are directly conscious of mental phenomena, and only indirectly of the physical, and we can judge of the nature of another human being only by attributing to him the same mental states which, as shown by consciousness, accompany in ourselves the same outward actions. The aim of the lecturer will be to reconcile the testimony of consciousness with the observed facts of physiology and psychology which have given rise to this theory of pure automatism. The relation between mind and body is largely maintained by the nervous system, an apparatus consisting of sensory and motor elements. This twofold nervous system, with the muscles on which it acts, and the mechanical levers moved by them, would make up the whole physical man but for the apparatus necessary first to build up this machine, and afterwards to keep it in health.

The connection between a *neurosis*, or change in the condition of the nervous system, and a *psychosis*, or change in the mental state, is a problem which probably will never be solved.

Prof. Clifford, influenced by preconceived mathematical ideas, was unable to conceive of change in matter as due to anything else than a change in the position or motion of surrounding matter. Prof. Huxley once admitted that neurosis was the cause of psychosis. Now he believes that neurosis can proceed in the absence of mind. The logical result of this theory, as stated by a distinguished adherent, is: "I am what I am, a creature of necessity. I claim neither merit nor demerit, and am no more responsible for my doings than is the needle which turns toward the poles, or the puppet which moves by the pulling of a string." Common sense, the universal testimony of consciousness, revolts at this theory. It contains much truth, but is not the whole truth. Much is due to heredity and environment, but man has a power over the formation of his character and in shaping his course of action, this power arising from his ability to fix his attention upon such motives as he prefers among those arising automatically before him. An important fact is that the greatest results of mental activity are produced by means of some of the smallest of the organs of the body. A famous instance is the case of Laura Bridgman, who, bereft of nearly every sense, was put into communication with the external world by the skill and patience of Dr. Howe. The case of the paralytic who ruled his family by the winking of his eyelids (*Noirtier* in Monte Cristo) illustrates another phase of this truth. The organs of speech, the muscles of facial expression, muscles used in writing, are all comparatively insignificant, and yet by their instrumentality the greatest results of mental force are accomplished. A striking instance was the bombardment of Alexandria following Lord Granville's brief dispatch: "Bombard the forts to-morrow morning." A few movements of the fingers upon a telegraphic instrument brought on a war. So true is it that there is no common measure between our mental and our physical activities. We may measure the waste of nervous matter expended in mental activity, but the "thoughts that breathe and the words that burn," how are they to be measured?

The truth is that mental and physical activity are two distinct spheres which touch each other only at the two points of sensation and motor impulse. The body may be likened to a horse, the mind to the rider who trains and measurably guides it. Thus the body is essentially automatic in all those functions which are concerned in the preservation of life, a control being given to the will—which is not an attribute but the *ego* in action—to modify to a certain extent the action of the body. The phenomenon of respiration affords a useful analogy. During sleep it goes on automatically, the will not being directed toward it, but when we speak, for instance, the will controls the breathing process to a considerable though limited extent. Coughing is a strictly automatic act, but yet may be checked or produced at the mandate of the will. In other words mental impulse is capable of exactly replacing the automatic in directing the action of these organs. From this fact arises the distinction between voluntary and volitionary movements. Thus in taking a walk the legs move automatically, while the mind is engaged in conversation with a companion, but if fatigue asserts itself, the will must step in and compel the continuance of muscular movement, and there are many similar illustrations.

Second Lecture, November 16.—This lecture comprised a general outline of our knowledge of automatism in the lower plants and animals, and thence up to man. Man's automatism is partly congenital, partly acquired; the form considered in this lecture was the former type, which is concerned wholly with vegetative or organic life. Higher than this is the automatism of sensation, higher still, rational automatism.

Commencing with the automatism of plants, the lecturer took up some of the lowest forms of plant life—the green seaweeds—describing the spontaneous movements of the zoöspores. Their motor organs are prolongations of the protoplasm of the plant. Vaucher, the naturalist of the last century, was the first who observed this plant motion. Hence the name of the plants—Vaucheria. He thought these plants were vegetable at one period of their existence, and at another, animal. The leading microscopists forty years since claimed that the plant was an animal. A much higher form of vegetable automatism is seen in the leaves of the sensitive plant, or in the action of Venus's fly-trap. If any leaf of the Mimosa be touched it at once droops and becomes flaccid, but gradually recovers strength and revives again. If any of the spines on the bilobular leaves of the Venus's fly-trap be touched the lobes rise and close, capturing any insect which may chance to be between them. An axis-cylinder of protoplasm extends from cell to cell in these plants and furnishes the connection necessary for automatic action.

Automatism in insects was next considered. The simplest form of animalcula is a cell having a mouth surrounded by ciliæ, which by a to-and-fro waving movement produce currents in the water in which the creature exists. Similar ciliated cells are found in the human body, in the lungs, for example. The amœba, one of the simplest of jelly specks, extemporizes a mouth at that portion of its body which comes in contact with a substance suitable for assimilation. A mouth and exit are both extemporized. Exactly similar bodies are found in our own blood—the white corpuscles. They can be seen taking matter into themselves just as the amœba does. Amœboid cells line the stomach and apparently assist in the assimilation of food. A higher grade of automatism is seen in the jelly-fish, in which there seems to be a separation of the nervous and muscular systems.

The crinoid, to which Dr. Carpenter has devoted special study, was next considered. In its perfect state the crinoid is a starfish with a distinct separation between nerve and muscle. Each arm of the starfish has hundreds of joints, each with its proper muscles of action and opposition, and the creature controls them by means of the nervous system at its centre. Articulated creatures—a centipede being the illustration—were next discussed. Then followed a description of the gan-

glionic system. The simple ganglionic apparatus in a water animal was explained. It has two orifices—one for the ingress, the other for the egress, of a current of water. The animal, probably, has a low degree of sensation, and whenever a solid substance comes in contact with one of the tentacles at the place of ingress, it is at once ejected by an act much like coughing —a good illustration of reflex action. Various other illustrations of reflex action in the lower animals were given.

In man there is an automatic action which continues through life. The act of sucking is perfectly performed by a new-born infant; there is great complication of movement, but it is wholly automatic. In puppies the cerebrum has been removed, and the act of sucking continued as perfectly as before. The act of swallowing is purely reflex. By an act of the will the food is carried to the lower muscle of deglutition, and they then act automatically. The stomach acts automatically in bringing food from its interior to its coats. The action of the pyloric valve is also automatic, as are the peristaltic movements of the intestines. The heart's action is likewise automatic, and thus it is seen that the important functions necessary for the preservation of life are carried on without our consciousness. The whole life of the lower animals is automatic.

CANADA.

(*From our Special Correspondent.*)

DR. DICKSON, OF KINGSTON.—Another of the Canadian Medical Schools has lost its senior member and presiding officer. Dr. Dickson, President of the College of Physicians and Surgeons, of Kingston, Ontario, died on the 23d, after a prolonged illness. The deceased was a native of Ireland, and began his professional studies at Belfast and Glasgow. He was a graduate of the University of New York (1842), and a member of the Colleges of Physicians and Surgeons of London. He was one of the founders of the Medical School at Kingston, and the Professor of Surgery, and President of the Faculty. For nearly ten years he occupied the position of Superintendent of the Insane Asylum. He was the first president of the Ontario Medical Council.

DIPHTHERIA IN PHILADELPHIA.—The deaths from diphtheria in Philadelphia for the week ending November 25th amounted to 29, a falling off of 10, or a decrease of about 25 per cent., as compared with the number for the preceding week. In the corresponding week of last year there were 21 deaths from this cause. For the month of November (to November 25th) there have been 103 deaths reported, which is an excess over the number recorded in any preceding month. The number of cases reported at the Health Office to November 27th, is 276, which represents an increase; but these figures show a laxity on the part of physicians in reporting cases, as required by law; otherwise the mortality would be unprecedented.

In comparing the cartographic illustrations of the prevalence of the disease as indicated by the deaths in 1882 with the year 1881, it is observed that there is a striking agreement in the periods of the rise and fall of the mortality; only that the lines in 1882 are more pronounced than in 1881. There are two periods of maximum mortality, namely, in the first and last periods of the year, and one of the minimum mortality which is reached between the end of the winter and the first of the fall months. The fall and winter months appear to be those in which the disease is most rife.

The disease appears to be confined almost exclusively to children; not a death is reported, during the past week, among adults.

Cases are reported in twenty-eight out of the thirty-one wards of the city. While the disease is thus generally distributed, the returns show that it is most prevalent in Frankfort, an outlying district.

In some instances the disease is reported as malignant in character; as many as three children dying in one family.

By an Act of Assembly, physicians are obliged to report all cases of diphtheria to the Health Office, as soon as they come to their notice, under a penalty not exceeding fifty dollars for violation of this provision of the law. This act has not hitherto been generally complied with. Its object is to furnish the authorities with the earliest information of the existence of the disease, that prompt action may be taken to restrict, if not prevent, the spread of the disease.

The Board of Health have published for distribution, a series of rules on the restriction and prevention of diphtheria, which appear in another column. This plan has been generally adopted in regard to other contagious diseases, and is to be commended in this case. As this disease is chiefly one of childhood, it is safe to assume that it is often communicated by the intercourse of children in the early stages of the disease, or from infected houses with others in the public schools and other places. It is, therefore, eminently proper that parents should be carefully instructed in their duties in this respect, and in all measures to restrict the spread of the disease.

SANITARY INSPECTION OF NEWPORT, R. I.—The Sanitary Protective Association of Newport, R. I., met on the 24th of Nov. to act upon the Report of the Sanitary Survey of the city, made under the auspices of the National Board of Health, by MR. E. W. BOWDITCH, of Boston, Mass. The report gives a general statement of the character of the results obtained by the inspectors. Over 2,000 surveys were made, the reporter's notes of which are in the hands of the Association, and available for immediate and practical use. Maps and charts accompany the reports, exhibiting by different shades of color, and by the number of degrees of a circle thus shaded, the percentages which were obtained. Thus, as to cellarage: the per cent. of good, fair, and bad cellars in the whole city is first shown, and then the ratios in each of the wards. Another series of drawings represents the relations of the privies and cesspools to the wells. We understand that it is not proposed at present to publish either the report or charts for general distribution. From the *Fall River Daily Herald* of November 24th, we learn that "The investigation was made at the request and expense of the Society [Sanitary Protective Association, Newport] to influence the city authorities to establish a separate health board, and it was offered to suppress the report if such a board were established. The proposition was refused, and it is probable that the full report will soon be given to the public.

CHOLERA AMONG THE PILGRIMS.—Official advices to the National Board of Health announce that cholera made its appearance among the pilgrims at Mecca, on October 24th. On the 29th, there were 48 deaths among them from this disease. As this is the time of the greatest afflux of pilgrims to the Holy Cities, and as they will shortly be commencing their return journey, it is justly apprehended that the disease may be spread by them with disastrous results. Vessels coming to Suez are strictly quarantined by the Sanitary Administration of the Ottoman Empire; thus the danger of the introduction of cholera into Europe, by way of the Red Sea, is considerably lessened; but the overland caravans may scatter the seeds of the disease, and bring them to the Mediterranean by unguarded routes.

PREVENTION AND RESTRICTION OF DIPHTHERIA.—The Philadelphia Board of Health has just issued the following circular on this subject:

Recent investigations having proved that the poison of diphtheria is portable, communicable by infection, and capable of reproducing itself outside of the human body, diphtheria must now be ranked as both a contagious and infectious disease. The following rules are therefore more imperative than ever before:

First. When a child or young person has a sore throat, a bad odor to its breath, and especially if it has fever, it should immediately be separated and kept secluded from all other persons except necessary attendants, until it be ascertained whether or not it has diphtheria, or some other communicable disease.

Second. Every person known to be sick with diphtheria should be promptly and *effectually isolated* from the public. Only those persons who are actually necessary should have charge of or visit the patient, and these visitors should be restricted in their intercourse with other individuals. Children residing in a house where there is a case of diphtheria should not be permitted to attend school.

Third. When a case of diphtheria is fully developed, the same precautions in regard to free ventilation, disposal and disinfection of discharges, bed or body linen, and so forth, isolation during convalescence (or management of the corpse should death unfortunately occur), etc., ought to be enforced which have already been recommended in regard to smallpox.

Fourth. It is particularly important that persons whose throats are tender or sore from any cause should avoid possible exposure to the contagion of diphtheria. Children under ten years of age are in much greater danger of taking the disease, and after they do take it of dying from it, than are grown persons. But adults are not exempt, and mild cases in them may cause whole series of fatal attacks among children.

Fifth. Numerous instances are recorded where the contagion of diphtheria has retained its virulence for weeks or months, in cesspools, heaps of decaying vegetable matter, damp walls, etc., and been carried for long distances in clothing, in sewers, in waste pipes from stationary wash-stands, and in other conduits. Hence all sewer connections and other carriers of filth should be well ventilated and disinfected, and children particularly should not be allowed to breathe the air of any water-closet, cesspool, or sewer into which discharges from patients sick with diphtheria have entered, nor to drink water or milk which has been exposed to such air.

Sixth. Beware of any person who has a sore throat; do not kiss such a person or take his or her breath; do not drink from the same cup, blow the same whistle, nor put his pencil or pen into your month.

Seventh. Do not wear nor handle clothing which has been worn by a person during sickness or convalescence from diphtheria.

THE BACILLI OF TUBERCLE ONLY FAT-CRYSTALS.—At a meeting of the Pathological Society held at the Charity Hospital, New Orleans, on Nov. 20th, Dr. H. D. Schmidt, President of the Society, made a demonstration with the aid of the microscope to test the alleged discovery by Prof. Koch, of Berlin, of the bacilli of tuberculosis, or the germs of consumption. Dr. Schmidt has devoted much time to the observation of the bacilli of tuberculosis, and while engaged in his researches the discovery of Dr. Koch was announced to the world. This only encouraged Dr. Schmidt to renewed efforts, and the result was that he ascertained, beyond doubt, he claims, that Dr. Koch's germs were pseudo-bacilli, that is, fatty crystals, and not true bacilli. This result, it was stated, was obtained by long and arduous labor, in which the diseased organs of persons that had been afflicted with pulmonary consumption were minutely and carefully examined. Dr. Schmidt succeeded in finding the crystals, which were similar in appearance to those discovered by Koch, and evidently the same. To determine their nature, Dr. Schmidt subjected the crystals to the action of boiling ether, when they disappeared, proving that they were not germs or organisms, otherwise they would have remained unaffected by the ether.

DR. O. W. HOLMES has been appointed, by the President and Fellows of Harvard University, Emeritus Professor of Anatomy, in consideration of his many valuable services in the medical school during the past thirty-five years. He delivered his farewell anatomical lecture on last Tuesday.

DACOSTA'S DIAGNOSIS.—A German translation of this well-known American work has just been issued by Hirschberg, of Berlin.

SUSPENSION OF THE ARCHIVES OF DERMATOLOGY.—It is announced that the *Archives of Dermatology* a well known quarterly journal, edited by Dr. L. Duncan Bulkley, suspends publication after the appearance of the number for the present quarter.

THE LANCET'S LIBEL SUIT.—We are glad to hear that the Corporation of Brighton have abandoned the action for libel which they had commenced against the *Lancet*.

THE "PHARMACOPŒIA GERMANICA" FOR 1882.—The German Pharmacopœia has been subjected to revision, as is usual every ten years, and is now ready for distribution. Many articles included in early editions, and now proved to be worthless, have been discarded, and the new drugs receive full attention, so while the edition of 1882 considers more than 300 articles less than that of 1872, the space remains nearly the same. It is written in Latin.

JEFFERSON COLLEGE HOSPITAL.—DRS. JOSEPH HEARN and O. H. ALLIS, have been elected surgeons to the Jefferson College Hospital, in Philadelphia.

THE NEW YORK SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN has just published its 20th Annual Statement, from which it appears that the society now numbers 142 members, of whom 94 are for life and 48 annual subscribers. There are also 22 benefactors, constituted by the payment of $150.00. During the past year $4,288.00 were paid to annuitants and its present assets are $141,249.49.

CHARGES AGAINST PROF. FROTHINGHAM, OF THE UNIVERSITY OF MICHIGAN.—The Medical Faculty of the University of Michigan have just considered the charges made by student Morgan against Prof. Frothingham, of attacking the Christian religion, and the counter-charges of falsehood by Prof. Frothingham against Morgan. The Faculty, on Nov. 24th, decided that as to Prof. Frothingham they had no jurisdiction, but that the charges of the latter against Morgan were not sustained. This is claimed to be a victory for Morgan against Prof. Frothingham, and it is stated that the matter may now be taken into consideration by the Board of Regents as against the Professor.

ROTUNDA LYING-IN HOSPITAL.—Dr. A. V. Macan has just been elected master of this well-known institution, to succeed Dr. Lombe Atthill, whose term of service has expired.

EDINBURGH UNIVERSITY.—It is said that there are three hundred more students in Edinburgh this year than last.

DR. FRANCIS SEYMOUR HADEN, the eminent English etcher and surgeon, now on a visit to this country, was the guest of the St. Botolph's Club, in Boston, last Saturday evening.

A SUIT FOR MALPRACTICE AGAINST THE LONG ISLAND COLLEGE HOSPITAL.—A suit to recover $25,000 as damages for unskilful treatment of a broken leg, brought by Carl Elbe against the Long Island College Hospital, came to trial this week, in the Circuit Court, before Judge Gilbert. The plaintiff alleges that he went to the hospital with one leg broken on May 29, 1880, and by malpractice his leg was permanently shortened, and he was crippled for life. The hospital authorities made a general denial of the charge of improper treatment. The case is still on trial.

THE PARKES MUSEUM OF HYGIENE.—This museum has been incorporated by Act of Parliament and has recently acquired quarters in Margaret Street, Regent Street (opposite the Church of All Saints) On October 28th, the first general meeting was held and His Royal Highness, Prince Leopold, Duke of Albany, was formally elected the first president.

THE COLOR BLIND.—According to the *British Medical Journal* the Swedish Government has decided to employ no individual on railways, or on board ship, in that country, until he has successfully passed Prof. Holmgren's test of color-blindness.

HEALTH IN MICHIGAN.—Reports to the State Board of Heath for the week ending Nov. 18, 1882, indicate that typhoid fever, pneumonia, and neuralgia have increased, and that bronchitis, tonsillitis, typho-malarial fever, diphtheria, intermittent fever, cholera morbus, diarrhœa, and scarlet fever, have decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending Nov. 18, and since, at 24 places, scarlet fever at 13 places, and measles at 3 places. Smallpox was reported at Niles and at Grand Rapids, Nov. 18.

OBITUARY NOTICE.—DIED, on October 26th, PROF. OBERNIER, of Bonn, in the 44th year of his age. Prof. Obernier was born in Bonn, in 1839, where he obtained his medical degree in 1858, his dissertation on the nerves of the uterus receiving a prize. He was soon appointed an assistant at the university clinic, and succeeded Prof. Rühle as ordinary Professor of Medicine in the Bonn University. He was called to Jena but he preferred to remain in his native university-town. He served through the Franco-Prussian war, and was decorated with the iron cross. He was the author of the Section on Diseases of the Brain in Ziemssen's Handbook.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM NOVEMBER 20 TO NOVEMBER 27, 1882.

ALDEN, CHARLES H., *Major and Surgeon.*—At expiration of present leave to report to the commanding general, Department of Dakota, for assignment to duty.—*S. O., par. 10, No. 273, A.G.O., November* 23, 1882.

BILL, JOSEPH H., *Major and Surgeon.*—At expiration of present leave to report to the commanding general, Department of the Platte, for assignment to duty.—*S. O., par. 10, No. 273, A.G.O., November* 23, 1882.

MCKEE, JAMES C., *Major and Surgeon.*—Now awaiting orders, is assigned to duty in the Department of California.—*S. O., par. 10, No. 273, A.G.O., November* 23, 1882.

SMITH, ANDREW K., *Major and Surgeon.*—At the expiration of his present sick leave will be assigned to duty at Willet's Point, New York.—*S. O., par. 10, No. 273, A.G.O., November* 23, 1882.

BARNETT, RICHARDS., *Captain and Assistant Surgeon.*—The leave of absence granted November 1, 1882, is extended five months.—*S. O., par. 11, No. 273, A.G.O., November* 23, 1882.

BROWN, PAUL R., *Assistant Surgeon.*—The leave of absence granted May 25, 1882, is extended six months on surgeon's certificate of disability.—*S. O., par. 7, No. 273, A.G.O., November* 23, 1882.

CLEARY, PETER J. A., *Captain and Assistant Surgeon.*—Now awaiting orders, will report to the commanding general, Department of Dakota, for assignment to duty.—*S. O., par. 10, No. 273, A.G.O., November* 23, 1882.

CORSON, JOSEPH K., *Assistant Surgeon.*—Is assigned to duty at Jefferson Barracks, Missouri.—*S. O., par. 8, No. 273, A.G.O., November* 23, 1882.

MUNDAY, BENJAMIN, *First Lieutenant and Assistant Surgeon.*—Will be relieved from duty at Willet's Point, New York, and assigned to duty in the Department of the Columbia.—*S. O., par. 10, No. 273, A.G.O., November* 23, 1882.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE MARINE-HOSPITAL SERVICE, JULY 1 TO SEPTEMBER 30, 1882.

HUTTON, W. H. H., *Surgeon.*—To inspect keepers and crews Life-Saving Service, July 11, 1882.

MILLER, T. W., *Surgeon.*—To inspect keepers and crews, Life-Saving Service, August 7, 1882.

WYMAN, WALTER, *Surgeon.*—To inspect keepers and crews, Life-Saving Service.

LONG, W. H., *Surgeon.*—Granted leave of absence for ten days, July 1, 1882. Granted leave of absence for fourteen days, September 16, 1882.

MURRAY, R. D., *Surgeon.*—To proceed to Brownsville, Texas, August 21, 1882.

PURVIANCE, GEORGE, *Surgeon.*—To inspect keepers and crews, Life-Saving Service, July 13 and 18, 1882. To report for temporary duty at Washington, August 23, 1882. To report for temporary duty to Chairman Board of Examiners, Rev. Bk. "Chase," at Norfolk, August 26, 1882.

SMITH, HENRY, *Surgeon.*—Granted leave of absence for thirty days, July 5, 1882.

FISHER, J. C., *Passed Assistant Surgeon.*—To report for temporary duty to Chairman Board of Examiners, Rev. Bk. "Chase," at Norfolk. August 26, 1882.

IRVIN, FAIRFAX, *Passed Assistant Surgeon.*— Granted leave of absence for thirty days, July 28, 1882.

CARTER, H. R., *Passed Assistant Surgeon.*—To proceed to Hickman, Ky., for temporary duty, August 10, 1882. To proceed to Memphis, Tenn., for temporary duty, August 12, 1882. To proceed to Little Rock, DeValls Bluff, and Newport, Ark., as inspector, Sept. 16 and 21, 1882.

PORTER, F. D., *Assistant Surgeon.*—To proceed to St. Louis, Mo., for temporary duty, August 21, 1882. To report to Surgeon Sawtelle for examination for promotion, Sept. 1, 1882. To rejoin his station (Chicago) when relieved by Assistant Surgeon Urquhart, Sept. 1. 1882.

BENSON, J. A., *Assistant Surgeon.*—To proceed to Cairo, Ill., for temporary duty, August 12, 1882.

DEVAN, S. C., *Assistant Surgeon.*—To join Rev. Str. "Corwin," for cruise in Alaskan waters, July 10, 1882.

URQUHART, F. M., *Assistant Surgeon.*—To proceed to Wilmington, N. C., for temporary duty, July 26, 1882. To proceed to St. Louis, Mo., for temporary duty, September 1, 1882.

PROMOTION.

PORTER, F. D., *Passed Assistant Surgeon.*—Promoted and appointed Passed Assistant Surgeon by the Secretary of the Treasury, from October 1, 1882. September 14, 1882.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

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